# NEW ORLEANS MEDICAL AND SURGICAL JOURNAL


## GENERAL INDEX.


| | Page |
|---|---|
| Table of Contents | Adv. page 3 |
| Original Articles | 277 to 314 |
| Editorials | 315 to 317 |
| Society Proceedings | 317 to 329 |
| News and Comment | 329 to 334 |
| Book Reviews | 334 to 336 |
| Mortuary Report | 336 |



Vol. 75 DECEMBER, 1922. No. 6


## ORIGINAL ARTICLES.

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. Reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

### ACUTE APPENDICITIS—A SURGICAL PROBLEM.*


By P. GRAFFAGNINO, M.D., Surgical House Officer, Charity Hospital, N. O., La.


Acute Appendicitis was once an all-absorbing theme. It had its day in the editorial of newspaper and magazine; elicited demonstrative orations wherein the medical profession tendered to their co-workers and the future M. D's. the gleanings of years of study, observation and practice on this subject; gave birth to innumerable essays and text books. The press today regards it as a subject threadbare and obsolete; the average surgeon as something of common knowledge that has been thoroughly covered, while the essays and text books, filled with priceless knowledge dealing with the conservation of human life, have found homes on the shelves of Medical Libraries and are a source of endless enlightenment to the student seeking information along these lines.

Since this disease has been so thoroughly covered, the information at our disposal so invincibly conclusive, why is the general public so lacking in knowledge regarding its danger?

*Read before the Louisiana State Medical Society Meeting, April 11-13, 1922.

It has been my privilege to serve this Institution as House Surgical Officer for the past year and nothing has astonished me more than the number of delayed and neglected cases, the consequent high mortality and the prolonged difficulties resulting therefrom when recovery occurs. To my utter amazement, on consulting the hospital records for the past ten years, the general death rate has varied very little, but the rate in the delayed and neglected cases, that is, when suppuration and gangrene have occurred, has steadily increased. The following figures from the hospital yearly records are self-explanatory:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1912: | Total | Cases | 249 | Total | Deaths | 14 | Rate | 5.62% |
| 1913: | " | " | 257 | " | " | 7 | " | 2.73% |
| 1914: | " | " | 321 | " | " | 25 | " | 7.78% |
| 1915: | " | " | 373 | " | " | 23 | " | 6.17% |
| 1916: | " | " | 433 | " | " | 25 | " | 5.77% |
| 1917: | " | " | 509 | " | " | 29 | " | 5.11% |
| 1918: | " | " | 476 | " | " | 32 | " | 6.72% |
| 1919: | " | " | 477 | " | " | 33 | " | 7. % |
| 1920: | " | " | 622 | " | " | 33 | " | 5.3 % |
| 1921: | " | " | 767 | " | " | 36 | " | 4.79% |
| GRAND TOTAL | | | 4,484 | | | 257 | | 5.73% |

| Year 1912 | | | | DEATHS | | |
|---|---|---|---|---|---|---|
| | White | Colored | Total | White | Colored | Total |
| Appendicitis, Catarrhal | 119 | 20 | 139 | 1 | 1 | 2 |
| Appendicitis, Recurrent | 56 | 5 | 61 | 3 | — | 3 |
| Appendicitis, Suppurative | 32 | 14 | 46 | 4 | 3 | 7 |
| Appendicitis, Gangrenous | 2 | 1 | 3 | 1 | 1 | 2 |
| Total | 209 | 40 | 249 | 9 | 5 | 14 |

| | | | Deaths | Rate |
|---|---|---|---|---|
| Catarrhal and Recurrent: | White | 175 | 4 | 2.28% |
| " " " | Col. | 25 | 1 | 4. % |
| | | 200 | 5 | 2.5 % |
| Suppurative and Gangrenous: | White | 34 | 5 | 14.71% |
| " " " | Col. | 15 | 4 | 26.66% |
| | | 49 | 9 | 18.4 % |

| Year 1913 | White | Colored | Total | DEATHS White | Colored | Total |
|---|---|---|---|---|---|---|
| Appendicitis, Catarrhal | 85 | 15 | 100 | — | 1 | 1 |
| Appendicitis, Recurrent | 101 | 12 | 113 | 1 | — | 1 |
| Appendicitis, Suppurative | 29 | 12 | 41 | 4 | 1 | 5 |
| Appendicitis, Gangrenous | 3 | — | 3 | — | — | — |
| Total | 218 | 39 | 257 | 5 | 2 | 7 |

| | | | Deaths | Rate |
|---|---|---|---|---|
| Catarrhal and Recurrent | White | 186 | 1 | .53% |
| " " " | Col. | 27 | 1 | 3.7 % |
| | | 213 | 2 | .9 % |
| Suppurative and Gangrenous | White | 32 | 4 | 12.5 % |
| " " " | Col. | 12 | 1 | 8.3 % |
| | | 44 | 5 | 11.4 % |

| Year 1914 | White | Colored | Total | DEATHS White | Colored | Total |
|---|---|---|---|---|---|---|
| Appendicitis, Catarrhal | 109 | 29 | 138 | 7 | 1 | 8 |
| Appendicitis, Recurrent | 104 | 22 | 126 | 1 | — | 1 |
| Appendicitis, Suppurative | 39 | 11 | 50 | 9 | 5 | 14 |
| Appendicitis Gangrenous | 6 | 1 | 7 | 2 | — | 2 |
| Total | 258 | 63 | 321 | 19 | 6 | 25 |

| | | | Deaths | Rate |
|---|---|---|---|---|
| Catarrhal and Recurrent | White | 213 | 8 | 3.75% |
| " " " | Col. | 51 | 1 | 1.96% |
| | | 264 | 9 | 3.40% |
| Suppurative and Gangrenous | White | 45 | 11 | 24.4 % |
| " " " | Col. | 12 | 5 | 41.7 % |
| | | 57 | 16 | 28.05% |

| Year 1915 | White | Colored | Total | DEATHS White | Colored | Total |
|---|---|---|---|---|---|---|
| Appendicitis, Catarrhal | 75 | 19 | 94 | 1 | — | 1 |
| Appendicitis, Recurrent | 159 | 24 | 183 | 3 | — | 3 |
| Appendicitis, Suppurative | 67 | 24 | 91 | 12 | 5 | 17 |
| Appendicitis, Gangrenous | 4 | 1 | 5 | 2 | — | 2 |
| Total | 305 | 68 | 373 | 18 | 5 | 23 |

| | | | Deaths | Rate |
|---|---|---|---|---|
| Catarrhal and Recurrent | White | 234 | 4 | 1.71% |
| " " " | | 43 | — | —— |
| | | 277 | 4 | 1.45% |
| Suppurative and Gangrenous | White | 71 | 14 | 19.7 % |
| " " " | Col. | 25 | 5 | 20. % |
| | | 96 | 19 | 19.8 % |

| | | | | DEATHS | | |
|---|---|---|---|---|---|---|
| Year 1916 | White | Colored | Total | White | Colored | Total |
| Appendicitis, Catarrhal | 77 | 26 | 103 | 2 | — | 2 |
| Appendicitis, Recurrent | 207 | 57 | 264 | 2 | 3 | 5 |
| Appendicitis, Suppurative | 38 | 26 | 64 | 9 | 9 | 18 |
| Appendicitis, Gangrenous | 2 | — | 2 | — | — | — |
| Total ..... | 324 | 109 | 433 | 13 | 12 | 25 |

| | | | Deaths | Rate |
|---|---|---|---|---|
| Catarrhal and Recurrent | White | 284 | 4 | 1.44% |
| " " " | Col. | 83 | 3 | 3.61% |
| | | 367 | 7 | 1.90% |
| Suppurative and Gangrenous | White | 40 | 9 | 22.5 % |
| " " " | Col. | 26 | 9 | 39.4 % |
| | | 66 | 18 | 27.2 % |

| | | | | DEATHS | | |
|---|---|---|---|---|---|---|
| Year 1917 | White | Colored | Total | White | Colored | Total |
| Appendicitis, Catarrhal | 70 | 21 | 91 | 2 | — | 2 |
| Appendicitis, Recurrent | 259 | 55 | 314 | 3 | — | 3 |
| Appendicitis, Suppurative | 60 | 35 | 95 | 14 | 9 | 23 |
| Appendicitis, Gangrenous | 9 | — | 9 | 1 | — | 1 |
| Total ..... | 398 | 111 | 509 | 20 | 9 | 29 |

| | | | Deaths | Rate |
|---|---|---|---|---|
| Catarrhal and Recurrent | White | 329 | 5 | 1.52% |
| " " " | Col. | 76 | — | —— |
| | | 405 | 5 | 1.23% |
| Suppurative and Gangrenous | White | 69 | 15 | 21.7 % |
| " " " | Col. | 35 | 9 | 29.7 % |
| | | 104 | 24 | 23.07% |

| Year 1918 | White | Colored | Total | DEATHS White | Colored | Total |
|---|---|---|---|---|---|---|
| Appendicitis, Catarrhal | 73 | 24 | 97 | — | 2 | 2 |
| Appendicitis, Recurrent | 255 | ,57 | 312 | 1 | 3 | 4 |
| Appendicitis, Suppurative | 43 | 20 | 63 | 13 | 11 | 24 |
| Appendicitis, Gangrenous | 4 | — | 4 | 2 | — | 2 |
| Total ..... | 375 | 101 | 476 | 16 | 16 | 32 |

| | | | Deaths | Rate |
|---|---|---|---|---|
| Catarrhal and Recurrent | White | 328 | 1 | .305% |
| " " " | Col. | 81 | 5 | 6.17% |
| | | 409 | 6 | 1.46% |
| Suppurative and Gangrenous | White | 47 | 15 | 31.9 % |
| " " " | Col. | 20 | 11 | 55. % |
| | | 67 | 26 | 38.8 % |

| Year 1919 | White | Colored | Total | DEATHS White | Colored | Total |
|---|---|---|---|---|---|---|
| Appendicitis, Catarrhal | 106 | 39 | 145 | 8 | 2 | 10 |
| Appendicitis, Recurrent | 210 | 42 | 252 | 1 | 2 | 3 |
| Appendicitis, Suppurative | 41 | 25 | 66 | 7 | 7 | 14 |
| Appendicitis, Gangrenous | 11 | 3 | 14 | 5 | 1 | 6 |
| Total ..... | 368 | 109 | 477 | 21 | 12 | 33 |

| | | | Deaths | Rate |
|---|---|---|---|---|
| Catarrhal and Recurrent | White | 316 | 9 | 2.85% |
| " " " | Col. | 81 | 4 | 5. % |
| | | 397 | 13 | 4.4 % |
| Suppurative and Gangrenous | White | 52 | 12 | 23. % |
| " " " | Col. | 28 | 8 | 28.6 % |
| | | 80 | 20 | 25. % |

| Year 1920 | White | Colored | Total | DEATHS White | Colored | Total |
|---|---|---|---|---|---|---|
| Appendicitis, Catarrhal | 76 | 36 | 112 | 3 | 4 | 7 |
| Appendicitis, Recurrent | 354 | 82 | 436 | 2 | 2 | 4 |
| Appendicitis, Suppurative | 35 | 24 | 59 | 12 | 7 | 19 |
| Appendicitis, Gangrenous | 12 | 3 | 15 | 2 | 1 | 3 |
| Total ..... | 477 | 145 | 622 | 19 | 14 | 33 |

| | | | Deaths | Rate |
|---|---|---|---|---|
| Catarrhal and Recurrent | White | 430 | 5 | 1.16% |
| " " " | Col. | 118 | 6 | 5.08% |
| | | 548 | 11 | 2. % |
| Suppurative and Gangrenous | White | 47 | 14 | 29.8 % |
| " " " | Col. | 27 | 8 | 29.7 % |
| | | 74 | 22 | 29.7 % |

| Year 1921 | White | Colored | Total | DEATHS White | Colored | Total |
|---|---|---|---|---|---|---|
| Appendicitis, Catarrhal | 57 | 25 | 82 | 2 | 2 | 4 |
| Appendicitis, Recurrent | 440 | 131 | 571 | 3 | 3 | 6 |
| Appendicitis, Suppurative | 53 | 41 | 94 | 5 | 9 | 14 |
| Appendicitis, Gangrenous | 14 | 6 | 20 | 7 | 5 | 12 |
| Total ..... | 564 | 203 | 767 | 17 | 19 | 36 |

| | | | Deaths | Rate |
|---|---|---|---|---|
| Catarrhal and Recurrent | White | 497 | 5 | 1. % |
| " " " | Col. | 156 | 5 | 3.2 % |
| | | 653 | 10 | 1.53% |
| Suppurative and Gangrenous | White | 67 | 12 | 18. % |
| " " " | Col. | 47 | 14 | 30. % |
| | | 114 | 26 | 22.8 % |

## RECAPITULATION.

| Year | Appendicitis Catarrhal and Recurrent No. cases | Deaths | Appendicitis Suppurative and Gangrenous No. cases | Deaths |
|---|---|---|---|---|
| 1912 | 200 | 5 | 49 | 9 |
| 1913 | 213 | 2 | 44 | 5 |
| 1914 | 264 | 9 | 57 | 16 |
| 1915 | 277 | 4 | 96 | 19 |
| 1916 | 367 | 7 | 66 | 18 |
| 1917 | 405 | 5 | 104 | 24 |
| 1918 | 409 | 6 | 67 | 26 |
| 1919 | 397 | 13 | 80 | 20 |
| 1920 | 548 | 11 | 74 | 22 |
| 1921 | 653 | 10 | 114 | 26 |
| TOTAL | 3733 | 72 | 751 | 185 |
| Rate | 1.9% | | Rate | 24.62% |

Who is to blame for these figures? Wherein lies the fault? Surgery? Lack of appreciation of the benefits of early surgical intervention on the part of the internist, or lack of knowledge of the seriousness and dangers of this so common disease on the part of the general public?

The lines I am about to quote are so in accordance with my own views, so lucid and accurate, I can hardly realize seven years have elapsed since they were given utterance by the late Dr. John B. Murphy (Murphy's Clinics, June, 1915):

"In looking up recently for the 'Year Book of Surgery' the hospital statistics on the results of operations for appendicitis, what mortality rate do you suppose I found? The average hospital mortality rate is just a little over ten per cent! This includes appendicitis cases of all classes brought to the hospital for operative treatment.

"Is it time to stop talking about appendicitis? No! It is just the time to begin talking about appendicitis, and talking most seriously and emphatically about it. When you know that in our best hospitals better than 98% of all the acute appendicitis cases, including those with abscess and peritonitis, are saved and when you know that scarcely one out of a hundred cases of acute appendicitis cases operated upon during the first 24 hours of the attack is lost, think what the results must be in the other hospitals to make the general average so appalling! These patients did not die because of the operation—do not misunderstand me—they died in spite of it. Procrastination was the cause of death—the almost criminal cause."

Dr. Jere Lawrence Crook, in his masterful Presidential Address, Southern Medical Association, Hot Springs, Ark., November 14-17, 1921, dwelling upon the necessity of early operation and the danger of delay, says:

"In the daily routine of work when I am confronted with patients whose cases are hopeless simply because of delay in presenting themselves for treatment, and when I know that proper instruction from a source in which they have confidence would have caused them to seek aid in time, I feel the burden of responsibility pressing down upon me."

Delay and ignorance! To these two factors alone do I attribute the mortality rate of our great Charity Hospital. Yet Twentieth Century, reading of the human victims placed by Ignorance upon the sacrificial altar of the heathen, shudders, thanking God his is an age of enlightenment and progress.

Sir Berkeley Moynihan, in his "Surgical Essays," says:

"The most formidable and the most frequent of all the acute emergencies in abdominal disease is concerned with the vermiform appendix. I firmly believe that appendicitis is a disease which derives its fiercest activities from the means which are taken to treat

it; that acute spreading peritonitis is rarely, if ever, the result of an untreated disease, and that it is the administration of aperients which transforms a simple disease into one of the most serious type. If the surgeon, when he is called in consultation, hears that a purgative has been given, that alone should, in my judgment, decide him to advise an immmediate operation. In children especially there must be no exceptions to this law. To give aperients to children who have a stomach-ache is homicidal, yet so far as I can hear it hardly occurs to a mother or a nurse to do anything but this, the most disastrous thing of all."

These authorities clearly and forcibly answer the questions we have asked. We acquiesce in what they tell us, recognizing the experiences of our daily practice.

To Dr. Crook we owe much for the movement he has started, and I know of no better way of showing our appreciation of his efforts than by becoming his disciples and starting a campaign to educate the people along the lines he has suggested.

In this campaign the Press must be our strongest ally. The voice of the Press is far-reaching and knows no confine: without their valuable assistance we are helpless. If the physician and surgeon must assume part of the responsibility for a mortality rate of 10%, which proper instruction can reduce to 1%, no happier medium than the Press can be found to effectively and forcibly drive our lesson home.

The necessity for a publicity campaign was never more urgent. These figures from our great Charity Hospital which, in a measure, reflect the medical work of the entire State should urge all of us—surgeons, internists and teachers of our medical institutions to utilize the medical as well as the lay press, to carry to all physicians and the general public the fearful responsibility of ignorance and delay; and the great danger of purgation in all forms of acute abdominal diseases, of which appendicitis is the most formidable. To these factors alone can we attribute this astonishingly high mortality rate.

Acute appendicitis is a menace to human life and we *must* dispel the present belief that appendicitis is negligible.

## DISCUSSION.

**Dr. G. N. G. Stafford (Alexandria):** I think the title of Dr. Graffagnino's paper was well taken. "Acute Appendicitis a Surgical Problem." It cannot be anything else. An acute appendix is essentially, primarily and always a surgical problem. I know some of us —not very many, I am glad to say, of late—look on it from a different standpoint, but you cannot make anything else out of it and if you give your patients a square deal you had better look at it from that angle. I know that a great many cases which are treated with rest and ice bags and so forth, will subside, but that appendix, in

my opinion, never becomes normal again. The lumen may be all right, but there are adhesions that always make it a pathological proposition, and therefore it is a surgical matter.

The doctor's statistics were very interesting and ought to be a warning to all of us. That mortality should not be there—there is no excuse for it and it is all our fault that it exists. We are to blame because we "dally" too long. We used to hear a great deal about the time of operation—within so many hours. I read an article some time ago by a Frenchman who recited 1175 appendicitis operations he had done, and he came to the conclusion that the time for operation was as soon as he made the diagnosis—whether ten hours afterwards or ten days afterwards—the appendix should be removed. I believe he is right. He found the percentage of cures did not depend upon the number of hours elapsing since the beginning of the attack, but upon the character of the lesion.

I cannot add to the doctor's paper nor detract from it, but I want to emphasize the good advice he has given us. We know that in acute appendicitis nature does everything in her power to immobilize. Very frequently you find doctors insisting upon assisting nature and they do the opposite, they give purgatives. We should try to get the profession away from that idea. Never give a man a purgative when he has a pain in the "belly" until you find out what is the matter with him. I have seen cases brought into the hospital two or three days or a week after an attack with swollen abdomen and peritonitis, giving a history that they had had salts and castor oil and everything else. We should never give a patient a purgative until we find out what is the matter with him.

**Dr. E. D. Martin (New Orleans):** I agree with what Dr. Stafford has said, that the minute a diagnosis of appendicitis is made the appendix should come out. Why? We have no idea what is going on in that abdomen. A man who will treat an appendix with an ice bag or anything else when he can get his patient into a hospital for operation is almost criminal. In the last month I operated two cases of ruptured appendix in New Orleans, which had been treated two or three days with ice bags. That is wrong. Remember that 90 per cent of acute cases are an aggravation of chronic cases. What we have to learn to do is to make a diagnosis of the chronic appendix so it can be taken out. That is where mortality comes. We are doing better today, but the thing is to recognize the condition of chronic appendicitis so common today.

The etiology we do not know, but the theory of refrigerated food is advanced and that may be it; but the whole secret is that we must recognize these cases in the chronic stage because by every attack the patient is weakened. Just this last week I was called to see a woman who had never known she had an attack of appendicitis, yet she had a high temperature and her pulse was 98. She said about an hour before she began to vomit—no rigidity, but pain on deep pressure although not severe. I made an examination and found 20,000 leucocytes and 86 polys. She was removed to the hospital, the appendix taken out, it ruptured while we were manipulating it. She had been suffering from chronic appendicitis for years and thought it was indigestion. Let me impress upon you that it is not the acute appendix but the chronic appendix which afterwards becomes acute that we need watch.

**Dr. W. S. Rutledge (Ruston):** I recently had a chronic case that had been overlooked. The patient came to the office complaining of cramps in the left side. I asked him what he had been eating and he said pork and fish and so forth. I washed his stomach out and he went home, but that night he came in again complaining of pain. I thought it was indigestion and nothing serious, but I told him to

stay in bed and keep quiet. There was no sign of pain in the appendicial region—all the pain was on the left side. I did not see him again until about a week later. He was still complaining, but there was no rigidity and the leucocytes were 6500. That was on Saturday, and on Sunday morning he had general peritonitis. I rushed him to the hospital and operated without an examination and the surgeon found a gangrenous appendix. Do you call that easy diagnosis? It is not easy diagnosis. I say it is not a simple thing. I have enjoyed the paper, but it is not an easy thing to diagnose.

**Dr. Peter B. Salatich (New Orleans):** We talk about the education of doctors along the line of not giving purgatives. I think the doctors do not give purgatives now so much, but it is the people we have to educate. Another point about which we want to educate the people is that the pain of appendicitis does not necessarily start in the appendix. More often it starts in the solar plexus or above the umbilicus.

As a rule we find a bad appendix is heavy and in about 80 per cent of cases it drops back. As a rule I prefer a Battle incision. After making the incision I try to exclude the general cavity as much as possible. I do this by taking a retractor, about two inches wide, and putting it into the wound and pulling it out as much as possible and then after that I raise it gently and put in the gauze packs before I attempt to look for the appendix. After that I go down to the side of the wall, swab out the pus and then take the appendix out.

Another point about purgatives after an operation: I think a good many of us have lost patients by giving a purge too soon after operation, especially where there is a general peritonitis. If you wait four or five days the bowels will move themselves without any enema.

**Dr. Hilliard E. Miller:** I feel sure that the entire society feels indebted to Dr. Graffagnino for his excellent paper and tabulation of cases of appendicitis at Charity Hospital. His mortality percentage in the cases of ruptured and gangrenous appendices, appears astounding, and I am sure will be a future lesson to all of us present. Much has been said of the surgery of the appendix in this paper and its discussion, but there is one condition about which I wish to state, that I believe that there is too much surgery done. I refer here to the localized pus collections, attending ruptured and gangrenous appendices. In such conditions, it is very hazardous to do more than open pus pockets and drain. If the appendix presents itself and permits of easy removal, it should be removed. However, if an extensive search has to be made to locate the appendix, with the consequent disturbance of exudates and the natural walling off processes, it is best to simply drain, and leave the appendix in situ, as it has been shown that only about 10% of these cases ever give future attacks of appendiceal disturbances. If such should happen, one can go back at a more opportune time and remove the appendix under conditions which are much more favorable for the complete and ultimate recovery of the patient.

**Dr. C. P. Gray (Monroe):** When we look at these figures and realize what they mean, it is astounding. The rate of mortality in appendicitis is entirely too high. We physicians and surgeons are partially guilty of this and should face the issue with an acknowledgement of this guilt. It is true that the public as a whole have not been educated up to the stage of having the appendix removed at once in every case of acute appendicitis. Why? Largely because of the dilly-dallying of the doctor who first sees the patient. If we will assert ourselves with a degree of positiveness which will impress the patient that he has an acute surgical lesion which menaces his

life, eight out of every ten will submit to an early operation. As a whole we do not do this. The attitude of the patient will depend upon the attitude of the doctor. In other words, if we advise an early operation in such a manner as to convey to the patient any doubt of the advisability of such, naturally he will be doubtful; but if we assert ourselves and state positively that the appendix should be removed at once and explain the danger of delay, eight out of every ten will submit to an early operation.

Briefly I want to mention one other factor which enters into and is a cause of this high rate of mortality. I mention this with some fear and trembling and full well realize it is encroaching on dangerous ground. It is the attempted removal of the suppurative and ruptured appendix where we have a walled-off abscess or the formation of firm adhesions which act as a barrier to the spread of infection to the general abdominal cavity. In these cases my experience has been that it is far better to simply incise, mop out gently and place in drainage. Do not break up the protective adhesions trying to remove the appendix, but assist nature by draining and wait until later to remove the appendix.

**Dr. D. O. Willis:** To go back to the main point of this paper—the surgical condition. I am not a surgeon and do not operate except occasionally when I find a case of appendicitis that I think is a pus case, when I think it has already ruptured or is ready to rupture. Then I put them on a dining table or bed and open that place and let the pus out. But I want to make this point: I believe it is a tendency on the part of a portion of the profession to treat appendicitis more than inability to make a diagnosis that is responsible for so many of these cases going to pus formation and perhaps rupture and general peritonitis. I have been in the profession a long while and have had lots of cases operated for appendicitis. The profession and the public have knocked me at times about running every patient off for operation, but I always feel safer when I can get my patient to be operated on even though there is a possibility that it is not absolutely necessary. I can say this, that in the eighteen or twenty years I have been in the profession I have only had two cases of appendicitis rupture. One was due to the fact that a train failed to stop at a flag station to pick up the patient, which delayed him twelve hours in getting to the hospital. Unfortunately only one got well. The other was due to delay on the part of the patient—a little girl who was to be in a school entertainment and refused to admit that she was sick until it was too late. I have had no trouble in making a diagnosis of appendicitis before it is dangerous.

**Dr. P. Craffagnino (closing):** I really have nothing to add, and I want to thank the gentlemen for their kind discussion. I purposely left out the question of diagnosis and of operative technique, realizing that the subject was so vast that it would practically fill our whole program.

# THE IMPORTANCE OF THE HISTORY IN THE DIAGNOSIS OF TUBAL PREGNANCY.*

By E. L. KING, A.B., M.D., F.A.C.S., New Orleans. From the Department of Obstetrics and Clinical Gynecology, School of Medicine, Tulane University of Louisiana.

In view of the fact that local palpable pelvic evidence is often lacking altogether and when present is not conclusive, the history is conceded to be of first importance in the diagnosis of this condition. Clinically, our cases of ectopic pregnancy of the tubal variety can be divided into two groups: first, those cases in which neither tubal rupture nor abortion from the fimbriated extremity of the tube has occurred; second, those in which one of these terminations has taken place. The diagnosis before the occurrence of rupture of the tube or of beginning tubal abortion is extremely difficult and when made is generally a fortunate guess rather than a conclusion justified by the data in hand. The reasons for this are extremely simple. If the patient, previously regular, has missed a period, she naturally considers herself pregnant, and does not, as a rule, consult her physician. The classical symptoms of tubal pregnancy, viz., pain and uterine hemorrhage, very seldom make their appearance before tubal abortion begins or tubal rupture occurs. Should these symptoms be present in this early stage, they are insignificant in character, and are hardly noticed by the patient.

Hence, the patient is very seldom seen until the occurrence of one of the two most common terminations of the condition, namely, tubal rupture or abortion of the ovum through the fimbriated extremity of the tube; of these, the latter is, in my experience, much more common, though authorities differ greatly on this point. The other possible eventualities, such as secondary abdominal pregnancy, lithopædon formation, tubo-ovarian or tubo-abdominal pregnancy, mummification, resorption of the ovum, formation of a tubal mole, suppuration of an hematocele or of the fetal body, etc., are not common and when encountered are generally traceable to the non-recognition of the condition in its incipiency. So I shall confine myself to the history and symptomatology of tubal rupture and tubal abortion. Interstitial pregnancy presents practically the same clinical course, and primary

*Read before the Louisiana State Medical Society Meeting, April 11-13, 1922.

ovarian pregnancy is so rare that it is hardly necessary to consider it.

In the average case of frank tubal rupture of the so called "tragic" type, the diagnosis is, as a rule, easy. The patient generally gives a history of a missed or a delayed or a scanty period, though often she has apparently menstruated regularly and normally. She can frequently recall one or more mild transient attacks of pelvic pain, usually unilateral, to which she has paid no attention; there has occurred slight bleeding at irregular intervals. Then comes a sudden attack of violent pelvic pain, of a cramping character, which is usually unilateral; this is followed by the symptoms of shock and collapse, such as fainting, air-hunger, thirst, pallor and all the other symptoms indicative of free bleeding. The condition is rapidly progressive; I have watched the pulse go steadily up and the hemaglobin go progressively down while waiting for a few minutes for an ambulance to transport the patient to the hospital. Such a case presents little difficulty in diagnosis. Another chain of symptoms and signs occasionally found in tubal rupture is described by Schumann, who states that this type of reaction (which he calls "sthenic," in contrast to the other or "asthenic" variety) is not properly stressed in the literature, though Schumann holds that it is of very common occurrence. Here the history is as above outlined, but the collapse, weak pulse, pallor, and other signs of frank hemorrhage do not occur, though much free blood may be found in the abdomen at operation. The diagnosis, according to this authority, rests on the history and on the fact that extreme tenderness is elicited on bimanual examination. The abdomen is distended and is very tender on pressure.

Tubal abortion, or the expulsion of the ovum from the fimbriated end of the tube into the pelvic cavity, is much more difficult to diagnose. The ovum may be completely expelled from the tube, or it may be found protruding from the end of the tube at operation. The symptomatology of both varieties is the same, and the history is all important. Many patients give a history of a pelvic infection in years gone by, either puerperal, postabortal, or gonorrhoeal. Others have undergone pelvic operations. Many have had children, but none for several years; the so-called "relative" sterility. A much smaller number give a history of absolute sterility. These are suggestive data, common

to all ectopic cases. In the history of the present trouble a missed or a delayed period is the rule, but it is by no means invariable; the patient may have been perfectly regular. The main diagnostic point is *pain*, and the character of the pain is an extremely important detail. The diagnosis may depend upon this point alone. The patient will state that she was suddenly seized with a fairly severe unilateral pelvic pain while performing her usual duties. This pain is much worse than the indefinite preliminary pains, is more pronounced than the pain of uterine abortion, but it is not nearly so severe as the pain of rupture of the tube. It is generally followed almost immediately by marked faintness and weakness, and often by actual fainting. The patient rapidly rallies, but notices a dull, more or less constant pain thereafter. Bleeding, not profuse, nearly always follows the attack of pain after a variable interval; this is a valuable point in differentiating the condition from uterine abortion, where the bleeding sometimes appears *before* the pain, often *with* the pain, but very seldom delays its first appearance until *after* the pain. Pain and moderate bleeding may recur at irregular intervals for several weeks; this is another point of importance in differentiating the condition from uterine abortion, where the bleeding is fairly steady and the pain of little moment. Some patients complain of rectal or vesical irritability, but these are not constant symptoms. Of 186 cases of ectopic pregnancy at the Charity Hospital, studied by Dr. Graffagnino, pain was the main symptom in 66%, while bleeding was noted in 33%. Of 84 cases in which the preoperative diagnosis was recorded, it was correct in 33, or 44%. The percentage of correct diagnosis is higher at present, simply because we are on the watch for these cases.

Often the patient is not seen until several weeks after the tubal abortion has begun, and a mass in one tubo-ovarian region or in the cul-de-sac of Douglas is found. All possible laboratory and clinical data should be accumulated, but let me reiterate that a carefully taken and correctly interpreted history is of the greatest importance. A few examples may serve to emphasize this. I operated upon a colored woman in June, 1918, for a right tubal pregnancy at the Charity Hospital. She returned in March, 1920, with a left tubal pregnancy which had aborted, and there was a large mass of old and fresh blood in the cul-de-sac. One

member of the staff made a diagnosis of incarcerated retroverted pregnant uterus, but an accurate history pointed to the diagnosis of tubal pregnancy, which was confirmed at operation. In another case, no mass could be felt, even under anesthesia, but the history was so typical that the abdomen was opened and a small right tubal pregnancy, with beginning abortion and very little bleeding, was found. Another patient was finally diagnosed as a case of incomplete uterine abortion and was curetted, though she insisted that her symptoms were very different from those of a uterine abortion two years before, and that the pain this time was much more severe. No mass was felt, even under anesthesia. It was found necessary to open the abdomen a few weeks later, on account of the persistence of her symptoms, and to remove the pregnant tube which was then found. In another case, a diagnosis of pelvic abscess was first made. The mass increased in size and the uterus rode up on it and toward the left, where it was readily palpated through the thin abdominal wall, and was diagnosed as a nodule of the large uterine fibroid, which the second observer thought the mass to be. A careful history cleared up the matter, and a laparotomy settled the diagnosis of ectopic pregnancy. Many other similar cases could be cited. Recently, however, I interpreted a history as pointing to the diagnosis of extra-uterine gestation, but others of the staff disagreed, and a pus collection was found at operation. In this case, I feel that the history was not of the best and that the interpretation was faulty.

Let me stress, therefore, the importance of an accurate history in all cases where there is the least possibility of an ectopic pregnancy, such, for example, as a case of supposed uterine abortion in which no fetus or placenta has been seen. Especial importance should be attached to the character of the pain, as above outlined. It is the consensus of opinion that, with a very occasional exception, these patients should be operated upon as soon as the diagnosis is made, and a carefuly taken history, correctly interpreted, is the most valuable aid in establishing this diagnosis.

# FURTHER (ORIGINAL) OBSERVATIONS WITH THE X-RAY UPON THE APPENDIX.*

By DRS. ADOLPH HENRIQUES and LEON J. MENVILLE, Department of Medicine, Tulane University.

Development of the study of the gastro-intestinal tract with the X-ray has included the region of the terminal ileum, cæcum and the appendix. Frequent opportunity for the observation of this region has been afforded us in the past ten years. Some eight years ago we had developed our studies of the appendix to such a point that we drew attention to the appendix as a focus of intestinal intoxication, apart from the rest of the digestive tract, due to the retention within the lumen of the appendix of food remnants and their subsequent decomposition and absorption. This work has been confirmed, clinically, by the numerous cases in which relief was afforded by the surgical removal of the appendix after attempts to detoxicate the patients by purgation, diet, or both, had failed. We have observed cases in which the appendix alone remained filled with the remnants of an opaque meal for days and even a week or longer after the rest of the intestinal tract was emptied, even after the use of active purgatives.

The impossibility of putting our hands upon one or more chemical substances which we can definitely say are directly responsible for this or that set of symptoms is evident when we realize that the twenty-odd amino-acids, into which our proteins are split, are capable of forming several quadrillion combinations. For the present and for a long time to come we are obliged to rely upon empirical results with regard to intestinal intoxication.

We were of the opinion, for a number of years, that the appendix filled as a result of anti-peristalsis in the colon and not as a result of gravity. On account of the dependent position of the cæcum and appendix the natural assumption would be that the appendix fills by gravity. However, during the past five years we have observed a series of five cases in which the cæcum and with it the appendix were inverted so that these organs were upside down, occupying a position in which gravity could play no part in filling the appendix. Despite this inverted position, the

*Read before the Louisiana State Medical Society Meeting, April 11-13, 1922.

appendix was filled. Hence we feel justified in making the claim that the appendix fills by anti-peristalsis.

Anti-peristalsis occurs normally in the colon and nowhere else in the digestive tract except as a result of disease, usually of an obstructive type. In the colon both peristalsis and anti-peristalsis take place, the anti-peristalsis or reversed peristalsis being of a type in which the muscular contractions are less marked and the retrogade movements of the colonic contents less than with peristalsis. Anti-peristalsis serves the purpose of the better mixing of the food remnants and brings the contents into contact with the wall of the colon to insure better absorption. Under certain conditions from an increased innervation on the part of the vagus or from a decrease on the part of the sympathetic, anti-peristalsis is increased.

The question arises: If the appendix fills by anti-peristalsis, how does it empty? The appendix possesses a peritaltic action of its own and emptying occurs as a result of muscular action by the appendix. Normally, the appendix should empty about the same time as the adjacent cæcum. If we observe retention of the opaque meal in the lumen of the appendix after the cæcum is emptied we can conclude but one of two things, viz.: that the tone of the musculature is too weak, primarily, or that the musculature has been weakened from disease of the walls. The latter conclusion is strengthened by the presence of an associated spastic condition of the walls of the colon and by the presence of a fixed or kinked appendix, also by a point of tenderness over the appendix when palpated under the fluroscope with one finger.

Both the cæcum and the appendix vary so in their position within the abdomen, that unless one visualizes these organs under the fluoroscope ordinary palpation offers frequent occasion for error.

Aside from the fact that decomposition and absorption of the stagnant contents of the appendix may serve as a focus of intestinal intoxication, we have stressed the delay in emptying of the appendix by reason of the fact that pathologists are of the opinion that appendicitis usually begins in the mucosa. One can readily see how an appendix filled with myriads of bacteria from the cæcum together with putrefying food remnants serving as culture media, both of them prevented from leaving the

appendix as a result of delayed emptying, acts as a culture tube at body temperature and how easily inflammation of the adjacent mucosa can occur.

While realizing the potentialities of any tissue for disease, we have come to regard the appendix which shows delayed emptying as a so-called "potential appendix" even if unaccompanied by evidences, recognizable Roentgenoscopically, of pre-existing inflammation, and we believe that in the great majority of these cases that it is no longer a question of: Will this appendix become acutely involved at some future date? but of: How soon will it become acutely involved?

The acute appendix should not be X-rayed.

---

## DIAGNOSIS AND TREATMENT OF FLAT FOOT.*

By EDWARD S. HATCH, M.D., F.A.C.S., Chief Orthopedic Surgeon, Touro Infirmary, Consulting Orthopedic Surgeon, United States Public Health Service and New Orleans Dispensary for Women and Children, New Orleans, La.

One has only to look into the shoe store windows or listen to the tales of foot trouble, fancied or real, from his friends to realize how important flat foot is. A very large number of people are today wearing Orthopedic appliances or specially designed shoes. There are shoes with stiff shanks or counters, and some shoes are made with so-called arch supports in them, and there are shoes with flexible shanks, while others by the shape of the shoes, inflare or outflare, so-called, or a special design of heel, alter the position of weight bearing.

The greater number of cases of foot trouble are mild in character and people choose their shoes or plates without medical advice; they are apt to buy what their friends use or something that pleases their fancy and often with a measure of success. Many stores have a week each year during which time they advise their patrons that a specialist in foot troubles will give free advice to all sufferers. This means simply that some wide awake manufacturer is advertising a special shoe or foot appliance.

With the dictum of Strunsky, I heartily agree: "If a law prohibiting the sale of plates for fallen arches were passed and the sale restricted to the making of plates on the prescription of

---

*Read before the Louisiana State Medical Society Meeting, April 11-13, 1922.

physicians with experience in foot troubles, it would be a boon to suffering mankind."

The advocates of each type of shoe feel that their particular shoe is good for *all* cases of foot trouble and this pernicious advice causes people to go from one store to another in hope of relief. The truth is of course that some cases need one kind of treatment and others entirely different treatment.

In order to understand how to treat flat foot we must study in some detail the underlying anatomical causes of this condition. Much has been written about the anatomy of flat foot and just how movement takes place between the bones of the tarsus and metatarsus. The astragalus transmits the body weight. Drs. Lovett and Cotton have shown that most of the pronation takes place in the calcaneo-astragaloid joint. The astragalus rotates on the dome shaped calcaneal facet and slides downward. There is some abduction of the front part of the foot at the medio-tarsal joint. In severe cases the scaphoid and cuboid are practically dislocated.

Some authors feel that the difference between the normal balance position and the pronated position does not depend on ligaments but on muscular action alone; but certainly both play a part. If the calcaneo navicular, deltoid or interosseus ligaments are stretched or weakened there is a tendency towards the pronated position.

The muscles whose integrity affects pronation are the tibialis posticus, tibialis anticus, flexor longus hallucis, flexor brevis digitorium, and the peroneus longus and brevis.

Therefore while flat foot is essentially a static defect, the general condition of the patient must be given careful consideration as anything that lowers the vitality will increase the local disability.

All cases fall naturally into two main classes: flexible flat feet and rigid flat feet, by far the greater number of cases being in the flexible class. This class can be subdivided as to causation into

1. Local:
   - a.—poor shoes;
   - b.—Genu Valgum;
   - c.—short Tendo Achilles;
   - d.—Arthritis—traumatic—infectious.

2. Constitutional:
   a.—infected tonsils;
   b.—bad teeth;
   c.—general infections;
   d.—syphilis—Argyll Robertson pupil Romberg sign;
   e.—chronic gonorrhea;
   f.—obesity.

We cannot hope for permanent results from our treatment if we neglect in any way the constitutional causes of the condition in question. A patient who applies for relief for foot pain may have any one of the above mentioned conditions or a combination of them and if we simply relieve the apparent local cause in a patient suffering from chronic gonorrhea or diseased tonsils we are not properly treating our patient. Flat foot may result from marked obesity and we should take care of this condition and also teach our patients how to stand and walk correctly. I shall pass over the treatment of these constitutional defects by simply calling attention to that phase of our problem.

We come now to the treatment of the local or static defects—poor shoes usually compress the front of the foot, this part of the foot from compression and resulting weakness cannot adapt itself when greater weight is thrown upon the foot, and a twist takes place. Such people stand and walk with the feet turned out; in a position of potential strain.

In our routine examination we quite frequently find that the patients cannot dorsally flex the feet beyond or quite to a right angle due to a short tendo achilles. Dr. Rugh states that in an examination of 50,000 soldiers, 12% had short heel cords, and that in an examination of a large number of nurses 30% had short heel cords. He attributes that difference to the fact that women wear high heels.

This means that from habitually using high heels they do not dorsally flex the feet in walking. If one of these patients suddenly begins to wear low heels she suffers. Usually these contracted heel cords can be stretched very well by a shoe designed by Dr. Newton Shaffer. I have used this shoe for several years and very rarely have to resort to tenotomy for this condition, but this contraction must be overcome before we can relieve our patients. Then we have the class of arthritis of the tarsus and

metatarsus either traumatic as following Potts' fracture, or infectious, as from infected teeth.

As stated above the flexible cases comprise much the larger number of those referred for treatment, and doctors disagree on the best method to use for their relief. One group of men feel that plates should never be used but that flexible shank shoes, strapping, exercises and stimulating muscular treatment, massage, etc., will suffice. In the very mild cases we can often relieve by this method, but I feel that Lovett is right when he says: "Do not use exercises or flexible shank shoes to relieve tired overstrained muscles, use heels and plates properly fitted, and may be high heel for awhile." For example it has been my custom for the last fifteen years, given a case of flexible static flat foot, to relieve the tired muscles at once by adhesive plaster strapping, after taking a plaster model of the foot. The strapping usually gives marked relief. On the second visit this patient is fitted with a flexible tempered light weight steel plate, usually made of 22 gauge stock and the adhesive strapping re-applied. Later a woven bandage is substituted for the strapping and daily alternate hot and cold showers and massage are used.

When the muscle ache and soreness have disappeared exercises are started and the patient goes on to recovery. In about 10 to 14 days the plates are raised slightly and finished. These plates are in no sense a fixation apparatus and are not intended to be worn indefinitely. *The patients being told at the outset* that at least 50% of the cure rests with them, in making their muscles do the work that nature intended.

In rigid feet the procedure is quite different except in cases of very beginning rigidity when repeated strappings, bandaging, and balanced heels, followed later by flexible plates, will suffice.

In the real rigid cases we must first hunt for the infection provided the rigidity is due to an arthritis; but in many cases we fail to find the cause and are forced to treat only the result—a rigid foot. It is an axiom that a patient with a rigid flat foot or valgus cannot wear a plate with comfort or relief. The rigidity must be relieved first by ether manipulation and overcorrection in plaster. The patient then walking in these plaster boots. If we find a marked spasm in the peroneus longus and brevis muscles a section of about 1½ inches of these tendons

together with their sheaths is resected after the method of Sir Robert Jones. This is an excellent procedure. After walking in corrective plasters for 2 or 3 weeks these patients are ready for adhesive plaster strapping and properly designed plates. These plates are made of slightly heavier metal than those before mentioned, usually 18 gauge and with anterior outer, and posterior inner flanges, to resist pronation and toeing out. In all cases both flexible and rigid, proper shoes must be insisted upon.

A very painful and distressing type of foot trouble is a relaxation of the anterior arch, the so-called Morton's metatarsalgia. These patients either complain of a very tired ache in the fore foot or of distinct cramps usually referred to the base of the fourth toe. Callouses are found under the metatarsal heads.

Here again the strengthening of the normal muscular supports is the object sought. These cases are given pads placed just behind the metatarsal heads either held in place with adhesive strapping or attached to an insole or a 22 gauge plate is made, shaped like a spoon with the bowl of the spoon behind the heads of the metatarsals. Exercises such as picking up marbles with the toes and alternate hot and cold showers hasten the cure.

## In Conclusion.

1. Do not advise patients to get shoes which some one may consider a panacea for foot troubles.
2. Do not advise patients to buy store arches.
3. Do not put flexible shank shoes on patients with tired overstrained muscles.
4. Examine carefully all patients complaining of painful feet. The constitutional condition counts.
5. Make clear to your patients that their careful observance of your directions as to exercises, massage, etc., is a very important part of the treatment.

## BIBLIOGRAPHY.

Baker: Flat feet and leg muscle strain related to industry in cause. Bos. Med. & Surg. Jour., 180:554. 1919.

Burk: Present status of treatment of flat feet. U. S. Naval Medical Bulletin, 13:46. 1919.

Cotton: Flat foot and other static foot troubles. Bost. Med. & Surg. Jour., 192:1. 1920.

Crandon: Flat foot. U. S. Naval Med. Bull., 13:54. 1919.

Ehrenfried: Flat foot in children. Bost. Mde. & Surg. Jour., 170:538-40. 1914.

Finkelstein: Differential diagnosis of flat foot. N. Y. Med. Jour., 102:185-90. 1915.

Lovett: Superstitions of flat-foot, high versus the low arch as a cause of painful symptoms in the foot. Jour. of A. M, A., 64:1208-11. 1915.

Ochsner: Potential and acquired flat foot. N. Y. Med. Jour., 110:745. 1919.

Packard: Treatment of weak and flat foot. Colo. Med., 11:406-11. 1914.

Meisenbach: American Journal Orthopedic Surgery. 1916, XIV 206.

Rowell: Mechanical consideration of the human foot with special reference to flat foot. Brit. Med. Jour., 914, v. 2:746.

Rugh: Three frequent causes of weak and flat foot. Annals of Surgery, 73:499. 1921.

Stewart: Flat foot and two opinions. Medical Record, 93:275. 1918.

Strunsky: Arch supporters for fallen arches. Medical Record, 88:149. 1915.

Whitman: Superstition of flat foot. Jour. A. M. A. 64:1675. 1915.

## DISCUSSION.

**Dr. J. T. O'Ferrall (New Orleans):** Dr. Hatch has mentioned in his excellent paper the fact that doctors do not agree on the proper treatment for flat foot, and he divides them into two classes—those who believe in plates or rigid arches, and those who believe in exercise and flexible shank shoes. I fall into a class between these two. I believe in a reasonable treatment, a treatment that includes exercise and the alteration of the shoe, certainly not with a flexible shank. A flexible shank put on a patient with already sick muscles certainly would not relieve him; on the contrary, it would make him worse. A great deal of strain takes place in the tarso-metatarsal joint—a strain between the hind foot and the fore foot. In my opinion, this foot should be made into one unit by means of a stiffened shank at the same time correcting the weight-bearing by altering the shoe, largely by inserting a wedge between the soles which lifts the foot on the inner side. Then they should be given proper exercise after the acute strain has been relieved. My great objection to plates is that they are quite expensive, they break readily, they ruin the stocking from rust, and they cut through the sole of the shoe very often, and people who are given plates, especially adults, it is very difficult to get them away from them. They do not feel it is necessary to take exercise as long as they have a crutch to walk on. I believe also that the constant pressure of the steel against the arch of the foot lessens the resistance of the muscles rather than develops them. Another objection is that people cannot wear low quartered shoes with plates. It is very difficult to get women to wear a plate because they cannot wear a low shoe. So my plan is to alter the shoe so it will permit them to wear a pump made on a medium last, and I find I can control the situation much better in that way.

**Dr. E. S. Hatch (closing):** I would like to say that of course, as I mentioned in my paper, I decry any stiffened shank that limits the motion of the muscles—I thought I brought that out pretty carefully. A 22-gauge plate is very thin and simply acts as a spring and it is easy to model these plates so that they do not slip at the heel and the patient can wear low shoes. But do not go away with the idea that every flat foot needs a plate. It is a question of treating each case by itself. The whole thing is to treat each patient as an individual, and not say, "Get this plate," or "that shoe."

## THE DIAGNOSIS OF FOREIGN BODIES IN THE BRONCHI.*

By R. C. LYNCH, M.D.

My reasons for presenting this subject to you are: first, it falls to the lot of but few men in general practice to see a sufficient number of the cases to develop for himself a symptom syndrome upon which he can depend; secondly, because so many of the cases finally reaching my service should have received attention much earlier if a proper diagnosis had been made.

By far the greatest number of cases are accidental and due to carelessness and occur in children up to ten years of age, though one sees intentional cases now and then and particularly in the insane, and rarely with suicidal intent.

Foreign bodies may lodge in any part of the air way, from the laryngeal face of the epiglottis to the periphery of the bronchial tree—and their lodgment necessarily depends upon the nature, size, shape, consistency and manner of introduction.

For purposes of study and discussion we divide the subject into two classes: (1) the acute cases in which the accident has only recently occurred; (2) the long retained or chronic type in which the foreign body has been in site for weeks or months or even years.

*Larynx.*—Foreign bodies which lodge in the Larynx between or above the vocal cords give rise to such violent symptoms that usually the case is presented to the doctor with the diagnosis established. If immediate death does not ensue from suffocation due to a complete laryngeal block, then there will occur hoarseness to the degree of aphonea, to be followed by hoarse or croupy cough with marked increased secretion both from the trachea and œsphagus and also from the salivary glands. If the intruder be sharp pointed the mucous may be bloodstained. Sand burs and cockleburs give rise to marked traumatism, pain aphonia and dysphagia because the act of swallowing even is painful. I have only seen two foreign bodies lodged in the larynx which were retained for any length of time. One of these was a piece of glass which was inhaled while drinking soda water. At first there was violent spasm, cough, complete aphonia and quite free bleeding. These symptoms gradually subsided and it was thought that the foreign body had been coughed out, but hoarseness con-

*Read before the Louisiana State Medical Society Meeting, April 11-13, 1922.

tinued for nearly a year, at which time I saw her and found a swollen and fixed left arytenoid and vocal cord. Under suspension I removed from the ventricle of the Larynx a triangular sharp pointed piece of thin glass. The symptoms promptly subsided and in the course of time the voice returned to normal.

Foreign bodies which find lodgment in the tracheo-bronchial tree will give rise to a series of symptoms in common depending on the characteristics of the invader and, depending on their final placement, will give symptoms more or less characteristic of the particular location. The usual history is about as follows: A child (and about 87% of the cases occur in infants and children to 10 years of age) while at play or seated on the floor will be suddenly seized with a violent choking and coughing spell and will be more or less cyanosed, and after this paroxysm is over may resume its play without further discomfort. Or more usually the baby is near by and is given by mother or other member of the family some peanuts or kernels of corn or watermelon seeds to play with; the mother notices that it has put some of these in its mouth and makes a grab or a rush to recover them. The baby's first response is a deep inspiration and one or more of the contents of its mouth finds its way into the trachea or bronchi with the symptoms as outlined above.

With the recovery from the first paroxysm no further symptoms occur and the incident may be overlooked for as long as two to four days to as many weeks or even months when the secondary phenomena occur which I will speak of later. As a rule however when play is resumed another spasm will occur as violent as the first and the child will even show apprehension upon the least movement having learned that these paroxysms of cough and suffocation occur at this time. Increased secretion, as indicated by rales and palpable fremitus and wheezing, occur with increased secretion and expectoration which after a short time is bloodstained. Temperature usually follows and in some instances reaches 104, and occasionally a convulsion may occur. These symptoms are characteristic of the invasion of a foreign body into the airway and they will continue, especially if the foreign body is floating or loose in the trachea or is too large to find lodgment in one or the other bronchus. If loose in the trachea, in addition to the foregoing, one will hear the tracheal click produced by the foreign body striking the under surface

of the vocal cords, and this click once appreciated can be heard some distance from the patient with or without the aid of a stethoscope, and the wheeze which resembles asthma and can be appreciated by the stethoscope near the open mouth and even when standing near the patient.

When out of a clear sky there occurs choking cough, cyanosis, excessive secretion as indicated by palpable and audible fremitus or wheezing and the secretion coughed out is bloodstained, whether or not temperature follows, and even if this paroxysm is hardly repeated, this represents in an infant or child an invasion of the air way by a foreign body and should demand immediate Bronchoscopy, for this procedure in experienced hands is practically without danger, can be done with or without anaesthesia and has practically no contra indications, and surely it bears practically no proportion to the dangers which will follow an undiagnosed foreign body in the airway and more particularly if this foreign body be a peanut, grass head or the like which will undoubtedly later produce pneumonia of the septic type and probably death.

If the foreign body is small enough to enter the right or left main bronchus, is metallic or crystal, is smooth and stays put, all symptoms after first paroxysm may subside and your patient will be presented looking, feeling and acting perfectly well, and I must admit you can hardly be blamed for sending the patient away either with the assurance that no foreign body has been inhaled or that as usual you scoff at the idea of such a thing—and yet the initial history is as clear cut as I could possibly make it for you.

If the main stem bronchus is totally blocked, and you will do the patient the honor to examine him carefully, and I say this not sarcastically but because it is brought so forcibly home in my experience with these cases, you will find marked diminution in the respiratory movement on the blocked side, absence of voice sounds, dull or flat percussion note and a few coarse rales about the fourth interspace from two to two and a half inches from the middle line; above this normal breathing and over the unblocked side rather increased breathing sounds. As time goes on and moisture increases and cough begins more rales are heard and the unblocked lung exhibits numerous coarse rales

all over. If the corking is incomplete as would occur in flat objects as watermelon seeds, buttons, pieces of tin, beauty pins and the like breath sounds on the affected side do not differ from those on the unaffected side, and if metallic, crystal, china and non-obstructive the symptoms are practically nil for a long time, usually six months or more. Please remember that even though a foreign body completely block the main bronchus say of the right lung, dyspnoea need not follow and especially if the patient is quiet, for the left lung will take care of all his needs under these circumstances.

In the peanut cases particularly will there be set up in short time the symptoms of an acute diffuse bronchitis with high temperature, and as the lower portion of the lung fills with secretion, dullness and even flatness on percussion will be found and the proverbial pneumonia diagnosis follow. What is thus diagnosed as pneumonia can frequently be cured in twelve to twenty-four hours by removal of the intruder and emptying the lung by a proper suction apparatus and canula.

An X-ray should be taken in every case even though the foreign body will cast no shadow for the picture will usually indicate the point of lodgment. If the right bronchus is securely corked and secretion has invaded the left lung, the ray would show the latter quite cloudy with the diseased side very clear because of the partial emphysema induced by the lodgment of the body; where the right lung begins to fill with secretion the ray will show this as a triangular curtain lying below the level of the foreign body, and in the case of those materials which will cast a shadow the object will be seen, but you must remember not to rely on only an anterior-posterior view but diagonal ones as well should be taken.

If now as in the case of tacks, collar buttons, screws, staples, pieces of tin and the like find lodgment, the first symptom group has been passed and the patient will remain in a quiescent state say from two weeks to six months or more, when there will develop a second set of symptoms which are harder to diagnose, and in many instances the final diagnosis is purely accidental. As the foreign body attempts to work its way to the periphery there will occur erosion of the mucous membrane even to the point of cartilage necrosis and perforation of the bronchus, or formation of abscess or become encysted in scar tissue. With the former

there will be the symptom group of a typical sepsis of mild type, with cough, expectoration of mucous, usually becoming more profuse, more purulent and more offensive and finally blood tinged and even hemorrhage. The sputa will show a typical purulent bacterial flora with no Tubercle Bacilli but every other organism usually found. Loss of weight, low temperature, cough, expectoration, bloody at times, offensive most of the time, rales in the lung and usually some dullness speak so strongly for tuberculosis that this is the usual diagnosis; though there may occur paroxyms which will represent a condition resembling pneumonia. One of my carpet tacks cases had such severe paroxysms that finally the doctor sent her down in desperation for she would hardly recover from one period before another ensued. The X-ray and Bronchoscopic extraction cured her.

Clubbed fingers, loss of hair, dry skin, emaciation and foul breath make you suspicious, especially when the sputum is negative for Tubercle Bacilli. So long as the ciliated epithelium is unimpaired and is able to provide drainage from the smaller bronchioles and there is no obstruction to drainage, acute inflammations are improbable. Lesions which are connned to the upper lobe are rarely found in foreign body cases.

While in these chronic long retained foreign body cases it is impossible to accurately lay down a rule to go by, I cannot stress too strongly that, in all cases of unilateral bronchitis or lung abscess of obscure origin, you consider in your differential diagnosis the possibility of a foreign body and that careful examination should be insisted upon.

DISCUSSION.

**Dr. Homer Dupuy (New Orleans):** It would be presumption on my part to attempt to add anything to Dr. Lynch's masterly review of the subject. I would like, however, for the benefit of this audience to bring out a point which we should not forget, and that is the remarkable tolerance of the laryngo-tracheal tract for foreign bodies, especially after they pass the larynx and trachea. In other words, a foreign body below the trachea at first makes a condition subjective and objective, but after a while these parts are remarkably tolerant to the presence of a foreign body, and therefore I wish to speak of that group of cases in which the foreign body is so small that it will pass the tracheal surface and reach the right bronchus and yet not cause complete obstruction. The coughing you will expect is frequently absent. Of course, there is a history of a paroxysm of coughing, but that passes away and we are misled by this history. The coughing is so slight that it escapes attention. There may be even in that group of cases a history of recurrent, slight dypsnoea, but often that is misinterpreted. You think the child might have had croup. The group that has given me the most trouble is this very group where the foreign body is not sufficiently large to cause

obstruction, and therefore the symptoms are so slight that the patient is brought only because of an obscure history. At the time of the examination the symptoms are so slight as to not even suggest the presence of a foreign body—say we are dealing with a foreign body of organic character where the X-ray is negative. As Dr. Lynch has emphasized, unless we remove the foreign body there are only two possible end results. One is the incident of expulsion of the foreign body, and the other is its retention with pulmonary abscess. Therefore, it seems to me very important that we emphasize two points—the remarkable tolerance of the lower respiratory tract for foreign bodies, and therefore, the history of no continuous coughing does not mean that there is no foreign body. And again, the absence often of recurrent dypsnoea.

**Dr. W. B. Hunter (Coushatta):** A case came to me about two months ago with a history of having swallowed a grain of corn. I told them I thought it had gone down the trachea and there was no chance for me to remove it, but I examined the patient as best I could. There was no history of cough. I thought it might possibly have lodged somewhere in the pharynx where I could see. I decided to give this child a dose of syrup of ipecac, thinking that vomiting might remove the grain of corn. The child vomited in fifteen or twenty minutes what appeared to be half of a burned cigarette. I told the parents that I would advise them to take the child to a throat man. The child was carried to Shreveport and afterwards to New Orleans. The grain of corn was found. It may be possible that Dr. Lynch saw this case and removed the grain of corn.

**Dr. S. M. Blackshear (New Orleans):** I had a case of a child who swallowed a collar button and the skiagram looked as though it was in the larynx. On account of the proximity of the esophagus and trachea, foreign bodies located in the esophagus oftentimes create a little irritation of the trachea and cause a cough. This foreign body caused a cough and I was called to see the case at the Charity Hospital. They had a fluoroscopic examination made and the X-ray man said it was in the trachea. I did a tracheo-bronchoscopy, but did not find it. They fluoroscoped it again and it was still there. Then I did a tracheotomy and looked into the bronchi, but found no foreign body. Then I thought it might be in the esophagus and took an X-ray picture and found it in the stomach by that time. That taught me a point that I think is very important, and that is, that the anatomical difference between the esophagus and the trachea is such that that mistake should never be made. The trachea is a cartilaginous tube which remains open and foreign bodies which pass the larynx will pass the bifurcation of the treachea and will not lodge in the space between the larynx and the bifurcation. Whereas the esophagus is a collapsible tube and they may lodge anywhere along that space. I want to bring out that point because that mistake should not be made. I want also to mention the point that Dr. Dupuy brought out about the tolerance of the tracheo-bronchi mucous membrane for foreign bodies. I was removing a dime from a woman's larynx that had been there four months and the only symptom was aphonia. Her cough had passed—she coughed at first, but when I saw her she was not coughing. Another instance was a child who had aspirated a six-penny nail—a four months old baby. It was in the right bronchus. When I set the child up there was no coughing and the breathing was natural, when I laid him down there was a violent spasm of coughing. It was my theory that the reflex was where the point of the nail went into the trachea, whereas when the head went into the bronchus it did not produce any coughing at all.

**Dr. E. R. Gandy (Alexandria):** I would like to ask Dr. Lynch if he has had any additional experience in the use of a magnet to

straighten out or change position of foreign body of steel in the trachea or bronchus preparatory to removal, as it was my privilege to witness him do once several years ago.

**Dr. Marshall M. Moody (Long Beach, Miss.):** Apropos of Dr. Lynch's paper, I wish to report a case. I was called last Wednesday night about ten o'clock to see a child that was choking to death. When I got there the little fellow, twenty months old, had marked dyspnoea. Their doctor was there and gave this history: The night before the child had been eating peanuts, and suddenly it began coughing. By the way, it was at a carnival with its two little sisters. Some woman around noticed it and grabbed it up and ran her finger down its throat and got out some peanuts. This doctor saw the case that night after it was sent home. With the exception of this history and dyspnoea the child had been perfectly well in every way. I looked into the larynx and saw nothing. I doubted there was any foreign body in there, yet from the physical signs and the history of the case I did suspect it. I sent it to the hospital and told the nurse to keep it quiet for a while. The next morning I went out and found the grandmother had come in and she said the child was all right, that it was a case of asthma. I gave it a hypodermic and it has been well ever since.

**Dr. D. O. Willis (Leesville, La.):** I want to mention the extreme tolerance of the bronchus for foreign bodies and also to tell about how I made a mistake. A little boy about six years old was brought to me who told me that he had breathed a five-penny nail into his lung. He had a good deal of coughing at the time, but when I saw him I did not find anything wrong at all—he was apparently perfectly normal. I rather discredited his statement and passed it up. I told his mother to watch him and if any trouble came up I would make an X-ray. About four months later he was playing out in an orchard one day and in "skinning the cat" and hanging by his legs from the limb of a tree with his head down, the nail dropped down against the epiglottis and he coughed it out.

**Dr. M. P. Boebinger (New Orleans):** I will not try to match my wits with Dr. Lynch, but I will merely attempt to tell a few of the experiences that I have had. In one case I can almost corroborate what the doctor said about "skinning the cat," except that I made a complete failure. This was a case of a child that had pneumonia. I made an absolute failure. The foreign body was a ball bearing from an automobile. I suggested raising the foot of the bed and a little later, probably two weeks, when resolution had set in, I was happy when the patient had a coughing fit and expectorated the foreign body. It was steel and round and my failure was because the foreign body was shown by the X-ray picture but there was exudate in front of my view, which caused my failure.

Another point is that in taking an X-ray picture of these cases I believe it is advisable always to take a lateral view. I remember one case of two years' standing, a little boy who had been seen by very good men. He gave a history of choking spells and some gastric disturbance. An X-ray was taken only antero-posteriorly, but it showed nothing. I thought the foreign body was not in the trachea because it was of long standing and there would have been worse symptoms. I believed I would find the foreign body in the esophagus. I removed the foreign body in a few seconds. But a lateral view, I am certain, would have shown this in the esophagus. My third experience was a young lady who, while eating oyster soup, swallowed a small piece of shell. We suspended this patient and used a Jacksonscope and in a few seconds was successful.

**Dr. R. C. Lynch (closing):** I confined myself solely to the diagnosis of foreign bodies, and therefore questions about technique I

will not answer. The message I wish to bring to you is the tolerance of the lung for retaining foreign bodies, as Dr. Dupuy has mentioned. In your cases of tuberculosis in which you have a foul-smelling, purulent suppuration without finding tubercles in the sputum, please have a careful X-ray picture taken to test for the elimination of foreign bodies. Five cases of long retained foreign bodies have come to me after having been through from two to three years of tubercular medication. This is one message I wish to bring to you in regard to the chronic cases. The other is that in the acute cases you will not pay attention to the first few minutes of the paroxysm, but try bronchoscopy, knowing that bronchoscopy has no contra indication, and without complications it is a perfectly safe procedure, much safer than to permit the patient to go to the point of possible abscess formation.

## ORGANIZATION OF THE 312th MEDICAL REGIMENT.*

**Address of MAJOR ROBERT B. SHACKELFORD, M.C., U. S. Army, Executive Officer, 312th Medical Regiment, Before the Orleans Parish Medical Society, New Orleans, La., October 23, 1922.**

*Mr. President, Ladies and Gentlemen:*

I appreciate very highly your courtesy in allowing me to appear before you to speak, briefly, on the organization of the 312th Medical Regiment. The term "Medical Regiment" is a by-product of the Great War—the same unit was then called Sanitary Train. The 312th Medical Regiment is a unit of the 87th division, which, as you doubtless know, draws its personnel from the states of Alabama, Mississippi and Louisiana. But the Medical Regiment is exclusively a Louisiana outfit, and since this is true, I bespeak your interest and help in completing its organization with only the best of material, because of your State pride. The regiment has a commissioned strength of 68 officers (Medical, Dental, Vet. and Chaplain and Med. Ad. C.) and 860 men. It is divided into three battalions—Hospital battalion, Ambulance battalion and Sanitary battalion. Each battalion has three companies, viz.; Hospital Co. 334, 335, 336; Ambulance Co. 334, 335, 336, and Sanitary Co. 334, 335, 336. The regiment as a whole is commanded by a colonel who is also Division Surgeon of the 87th or Acorn Division. As his executive officer, he has a lieutenant colonel next in command, and each battalion is commanded by a major. Sanitary battalion headquarters has one major and six enlisted men. Each sanitary company is commanded by a captain, and has a total of 4 officers and 100

*Read before the Orleans Parish Medical Society, October 23, 1922.

enlisted men. The Ambulance battalion is commanded by a major, who has one other officer as his assistant, and six men. Each Ambulance company is commanded by a captain, who has one officer as assistant, but the 334th A. C., which is animal drawn, has an enlisted strength of 61, whereas the other two companies, motor drawn, have only 55 men each.

The Hospital battalion is commanded by a major, who has one captain or lieutenant as assistant, and seven men at his headquarters. Each Hospital company has a major in command, with seven other captains or lieutenants as assistants, and an enlisted strength of eighty men.

In addition there is the Medical Supply Section, commanded by a captain, with one officer as assistant and thirteen enlisted men. Then comes the Medical Laboratory Section, commanded by a major, with one captain or lieutenant as assistant, and seven enlisted men. Last, but by no means least, comes the Vet. Co., commanded by a captain of the Vet. Corps, with three other officers as assistants, and 78 enlisted men.

The headquarters of the regiment is New Orleans, which is also Ambulance Battalion Headquarters, and headquarters of each Ambulance Company, and the Laboratory Section, Medical Supply Section and Vet. Co. The Service Co. of the regiment has its headquarters at Kentwood, La. Sanitary Battalion Headquarters at Eunice, La.; Sanitary Co. 334, Lake Charles; Sanitary Co. 335, at Plaquemines; Sanitary Co. 336, at Morgan City, La. The Hospital Battalion Headquarters is at Winnfield; Hospital Co. 334, at Mansfield; Hospital Co. 335, at Natchitoches; Hospital Co. 336 at Monroe, La.

Now, gentlemen, I want to invite your attention again to the fact that this regiment is a product of your own State, LOUISIANA. I am here as executive officer, and it is my duty to organize the regiment, be responsible for the paper work and details of administration during these "piping times of peace," but if war is ever declared, and the division mobilized, the officers assigned to the regiment would take over my duties and start the regiment to functioning, though it is possible I might be left for a while as executive officer until the machinery became well oiled and in fine working condition.

To date, I have a shortage of 33 officers, divided as follows, 22 Medical, 4 Vet., 2 Dental, 5 M. A. C. By rank, I am short

one full colonel, four majors, seventeen captains or lieutenants of the M. C. one major, three captains or lieutenants of Vet. Corps, two captains or lieutenants of the Dental Corps, and five captains or lieutenants of the M. A. C.

Those of you who have ever had service in the old Sanitary Train will agree with me that in the whole Medical Department there is no unit that gives you as much real *soldiering* as the Medical Regiment. In it there are opportunities for medical men to be company and battalion commanders, with close and intimate contact with their men. The life is one of excitement, for the regiment follows the line troops into action, and many, many deeds of heroism are recorded on the part of the Medical Department men and officers in this work. I hope that the few vacancies existing will soon be filled, and that applications for enrollment will be reaching my office from those of you who are interested.

Again I thank you for the privilege of addressing you.

---

## AN UNUSUAL ERUPTIVE DISEASE IN CHILDHOOD, WITH A REPORT OF SEVEN CASES.*

By DRS. RENA CRAWFORD and G. RICHARDA WILLIAMSON.

This unusual eruptive disease in childhood was first seen by us in September, 1921. We watched the child throughout the whole illness but were unable to make a definite diagnosis. Since that time we have seen six similar cases and have read reports from three or four others who have seen the same sort of cases. Ours were so much alike in their signs and symptoms that it is not necessary to describe in detail more than one.

In September one of us was called to see a child of 14 months. The mother reported that the baby did not seem very ill but that it had vomited its supper, consisting of milk and cream of wheat, the night before and had been "feverish." She had given castor oil and the bowels had moved twice, but the temperature had not been reduced. On physical examination it was found that the child looked well, was not cross or irritable. Its temperature by rectum was 102. Its throat was normal, ear drums not congested. Heart, lungs and abdomen were negative. We thought the fever due to a gastro-intestinal disturbance and

---

*Read before the Orleans Parish Medical Society, October 23, 1922.

gave a quarter grain of mercury with chalk every four hours. The next day the morning temperature was 101, and the evening temperature 104. Urinalysis was done and was negative. A complete blood count was not done, but a smear was taken and a differential count made. From the smear it was evident that there was not a leucocytosis. The count showed neutrophilic polymorphonuclear cells 33%. Small lymphocytes 65%, large monocuclears 2%. Again the next day the temperature was between 101 and 104 all the day. A second urinalysis was negative and no abnormal physical signs were found save the temperature. The following morning the temperature was normal and in the evening a rash appeared. The child seemed well but it had never seemed sick or toxic during the whole illness. When we saw the child the body and face showed a morbiliform rash which had spread to arms and legs, there was little below elbows and knees. It was rose colored with a bluish tint, about the color of a measles rash, it was not felt above the skin, it disappeared on pressure. It was nowhere hemorrhagic in character. The individual lesions were pin point or pin head in size. They often collesced to form irregular blotches. There seemed to be no itching. It disappeared in about 48 hours, leaving a slight discoloration a day or two longer. There was no desquamation. There had never been any redness of eyes, and sneezing, any running of the nose, any koplik spots or any enanthem in the mouth. There was no history of previous exposure to any infectious disease.

Before the rash appeared we thought of pyelitis, which was ruled out by examination of three separate specimens of urine, of otitis media, which was ruled out by examination of ear drums. We thought of a concealed pneumonia which did not yet show physical signs, but the good condition of the patient made pneumonia seem an improbable diagnosis and the blood picture, the lack of leucocytosis, the lack of increase in neutrophilic polymorphs was not the picture of pneumonia. The count of 65% lymphocytes was not far from normal for a 14 months old child. Influenza we could not rule out as the lack of abnormal physical signs in chest and a normal blood picture often go with influenza.

After the rash appeared the eruptive stage of the exanthemata at once was thought of. Scarlet fever was quickly ruled out because the rash in this case was so unlike the true scarlet erup-

tion and because the invasion stage in this case lasted three or four days while the invasion stage of scarlet fever is usually not more than 24 hours. The distribution also was unlike scarlet, the face being covered as well as the trunk, there was no circumoral pallor in our case. The rash of rubella bears a resemblance to the rash of our case, but the invasion period of rubella is marked just by the rash and a stiff neck due to enlarged cervical glands. Our case had not enlarged glands and the rash appeared after three days fever. The distribution of the rash was about the same. Slight staining was left by the rash in this case. The rash of rubella leaves no staining. Measles we ruled out by the dissimilarity of the invasion period, the lack of the catarrhal stage, the enanthem, the Koplik spots. And the child never had the woebegone appearance of measles, the blotched face, the puffy eyelids, and the bleary eyes.

The child had received no drugs to produce a rash, she had only a small amount of mercury with chalk. She had eaten egg for about the fourth time two days before she became ill. We felt reasonably sure that the case was not one of the usual exanthemata. We made the diagnosis, with a big query, of an unusual anaphylactic reaction to the protein of egg.

The rash might have been caused by anaphylaxis but the freedom from all respiratory and nervous symptoms, the freedom from gastro-intestinal symptoms with the exception of vomiting the one time, the absence of eosinophilia all pointed against the diagnosis of an anaphylactic reaction. We may add that the child had eaten egg many times since then without any unpleasant symptoms following. We saw a case similar to this one in 1920 which we were unable to diagnose. We then thought of measles, but it was so dissimilar to that disease that the diagnosis remained uncertain. The patient had a typical attack of measles the following year.

In December, 1921, there appeared in the J. A. M. A. an article by Veeder and Hempleman entitled "A Febrile Exanthem Occuring in Childhood," in which they have reported several cases seen by them. From the description of their case it seemed that ours was the same thing. They made blood counts in several cases and in every instance found a leukopenia and a lymphocytosis, the leucocyte count ranging from 80 to 90%. They called the disease "Exanthem Subitum." They referred to an

article by Zahorsky which appeared in "Pediatrics" in 1910 in which he described this disease and called it "Roseola Infantilis." His description was practically the same as that of Veeder and Hempleman. He, however, states that in majority of his cases he found slightly enlarged cervical glands, but he did not state whether these glands were tender or whether they disappeared when the disease did. It seemed to us that slightly enlarged cervical glands in infants is such a common occurrence that we examined the cervical glands of the next 247 healthy babies we saw and found that 51% of them had slightly enlarged or at least palpable cervical glands. In September, 1921, in Am. J. of Med. Science, Westcott described cases presenting these same symptoms. He called the disease pseudo-rubella. He says he usually found enlarged cervical glands and that these glands were tender and they disappeared when the rash subsided. In December, 1921, Levy described the disease in an article entitled, "An Eruptive Fever of Unusual Characteristics Occurring in Childhood." Greenthal in 1922, Am. A. J., Dis. Children, had a paper on "An Unusual Exanthem Occurring in Childhood," which was the same disease as described by the others. Park and Michael, in the June, 1922, No. of Am. J. of Dis. of Children have a full description of "A Peculiar Eruptive Disease Occurring in Infancy." Their description does not differ materially from that given by the other writers, but they have made more blood counts than the others have reported. They made 22 counts in 18 cases. Their highest leucocyte count was 7800 and their lowest 4,800. The lymphocyte count was in 2 cases between 65-75%, in 17 cases between 76-85%, and in 3 cases over 85%. They made one blood culture which was negative but they do not state at what stage of the disease the culture was made. Veeder and Hempleman reported one negative culture, but the culture was made after the temperature dropped to normal and the rash had come out. Since we saw the case described above we have seen six others similar to it. All have had fever three or four days with negative physical findings, save one child had a congested throat and one had reddened ear drum. After the three or four days fever a similar rash has appeared and the child has seemed well after its appearance. In all our cases other children in the household have been exposed but in no instances has a contact developed the disease. Of all our cases six

were wholly or partially artificially fed. One boy of 11 months was wholly breast fed, so the mother declared. But the fact that one of our babies had had no protein except that of the mother's milk does not rule out the diagnosis of a reaction due to protein sensitization, for recent observers have shown that an infant may suffer from a reaction to certain proteins eaten by the mother when the mother herself shows no symptoms of such a reaction.

In our opinion this eruptive disease is an exanthem not given a name in our medical text books. It is difficult to make a study of these cases because usually the physician is not called till the infant has been sick a day or two, and usually he does not make a diagnosis for another day or two till the rash suddenly appears and the child is well again. We hope to have the opportunity of making some blood counts in the febrile stage of the disease later and to make some protein sensitization tests on the cases previously seen.

# New Orleans Medical and Surgical Journal

**BOARD OF DIRECTORS**

Chas. Chassaignac, M.D.....President
A. E. Fossier, M.D.....Vice President
T. J. Dimitry, M.D.....Secretary-Treasurer

Homer Dupuy, M.D.
J. W. Newman, M.D.
G. M. G. Stafford, M.D.
Paul J. Gelpi, M.D., Ex-Officio.

**EDITORIAL STAFF**

Elizabeth Bass, M.D.
Chas. J. Bloom, M.D.
John Callan, M.D.
L. L. Cazenavette, M.D.
Frank J. Chalaron, M.D.
Isidore Cohn, M.D.
L. R. DeBuys, M.D.
Oscar Dowling, M.D.
M. Feingold, M.D.
Amedee Granger, M.D.
J. B. Guthrie, M.D.
John T. Halsey, M.D.
Chaille Jamison, M.D.
E. L. Leckert, M.D.
H. W. E. Walther, M.D.
P. T. Talbot, M.D., Ex-Officio.

**DISTRICT COLLABORATORS**

C. M. Horton, M.D., Franklin, Third District
Louis Abramson, M.D., Shreveport, Fourth District
C. H. Mosely, M.D., Monroe, Fifth District
C. A. Weiss, M.D., Baton Rouge, Sixth District
J. D. Tuten, M.D., Lake Charles, Seventh District
M. H. Foster, M.D., Alexandria, Eighth District

**DEPARTMENT EDITORS**

Maurice J. Gelpi, M.D.....Editor-in-Chief
Hamilton P. Jones, M.D.....Medicine
Urban Maes, M.D.....Surgery
John Lanford, M.D.....Laboratories
Ralph Hopkins, M.D.....Specialties

A. St. John Labry, Business Manager.

## EDITORIALS.

### HOSPITAL NOISE.

The correct conception of the modern hospital carries with it the idea that everything feasible is done within its walls for the safety and comfort of its inmates. From the theoretical standpoint this is true, though in practice it is seldom borne out. There is perhaps nothing more nerve-racking to the sick than the constant repetition of noises, particularly if the individual feels or has reason to know that these are avoidable.

Certain hospital noises are unavoidable on account of physical surroundings such as the close proximity to street cars or street

traffic in general. Other noises however, are of a different character and their ceaseless repetition speak loudly at times for inefficient management and inattention to details. From the very nature of the hospital certain indoor noises are inevitable though nearly all of these can be controlled to a certain degree. For instance, persistent unnecessary noises on the part of attendants, nurses and visitors can and should be controlled. Here it is a question of attitude and it behooves those in authority and their lieutenants to inculcate the idea and keep driving home the thought that after all the *patient* is the most important object in the hospital and as such, deserving of the fullest consideration.

Many times defects in construction or inattention to detail showing woefeul lack of foresight are responsible for the noise. In this category should be mentioned especially all the loud systems of signaling and the roaring of elevators. The creaking and slamming of ordinary doors is avoidable, as is also the shock-producing bang of the screen door. Kitchens also are a fruitful source for the most annoying noise-nuisance in the hospital.

The clanking and clattering of dishes is a nuisance of the most harassing variety to the sick. For the sake of convenience, the saving of steps and for general service, kitchens are often placed in the middle of a hall so that no part of the hall escapes the noise. This could be easily controlled by making the only means of entrance and exit to and from the kitchen through double swinging doors, each one placed at the extremity of a corridor, as is commonly done in certain hotel kitchens. If the corridor is sufficiently long to allow the first door entered to swing shut before the second door is reached the kitchen noise can be entirely eliminated.

With the prospects in the near future for extensive hospital construction in the State and particularly in New Orleans, might it not be wise to give the question of avoidable hospital noise a little more thought and consideration than has been allotted to it apparently in the past?

## FOODS.

Recently the Journal of the A. M. A. contained a full-page advertisement of a series of articles appearing or to appear in Hearst's International Magazine under the general caption of Doctors and Drug Mongers, the first with the sub-title of the Truth About Vitamines, the second the Truth About Syphilis, the third to be the Truth About Vaccines. We will at present concern ourselves only with the "Truth About Vitamines."

*The truth about vitamines really is that we know very little about them.* The most we do know about them is that there seems to be a requirement in the animal economy for substances such as they seem to be.

There is seldom a requirement so generally expressed in the form of a demand for which large and widely-disseminated numbers of people are willing to pay that the requirement is not a real necessity.

That being true, would it not be wise to determine the cause of the demand for vitamines? May it not be true that our methods of preparation and marketing of foods may be at fault, wherein certain vital elements may be diminished or destroyed by—say, the bleaching of flour, the addition of certain preservatives to foods, or what not?

Would it not be better to get at the basic cause of this demand and find out why we should be compelled to buy an extra portion of that which our food normally should contain?

HAMILTON P. JONES, M. D.

SOCIETY PROCEEDINGS.

## PROCEEDINGS OF THE HOTEL DIEU STAFF.

**Monthly Meeting for November, 1922.**

**The President, Dr. Homer Dupuy, in the Chair.**

### FUNCTIONAL LIVER TEST.

Dr. Alden Maher made a preliminary report of the Digestion Hemolysis Test for the insufficiency of the liver. Details relative to the test were as follows:

"An article appearing in the Presse Medical, Paris, December 11, 1921, by Widal, Abrami and Ivancovesco, describes what is said to be a very reliable and sensitive test for liver functions, known as the 'Digestion Hemolysis Test for the insufficiency of the liver.' It requires only fasting the patient over night and counting of the leucocytes before and at intervals of an hour, after drinking a glass of milk. We know that normally there is a rise in the leucocyte count after the ingestion of food or during digestion and that the liver plays an important role during this process. The author claims that with a normal liver the leucocyte figure rises or remains about the same but with disturbed function there is pronounced destruction of the leucocytes for the first hour or two during digestion. Normally the liver holds back the incompletely disintegrated proteins which have passed through the intestinal wall during digestion. When the liver is incapable of retaining these incompletely disintegrated proteins they pass into the general circulation and destroy the blood corpuscles, 'the digestion hemoclastic crisis,' as they call it. They found no trace of this 'digestion hemolysis' in a number of healthy persons examined, nor in those with different diseases in which the liver was not involved. Wolf, in the Schweizerische Medizinische Wochenschrift Basel, August 2, 1922, and Gould in Nederlandsch Tijdschrift V. Geneeskunde, Amsterdam, July 1, 1922, conclude from their tests of Widal's hemoclastic crisis that it is not only a constant sign of diffuse liver disease but it is one of the most sensitive reactions known to date. There are other symptoms accompanying the hemoclastic crisis besides the drop in leucocytes, but the authors have

concluded that leucocyte reaction is of sufficient importance and uniformly constant without heeding the change in blood pressure, coagulation time, etc."

In our work in the Hotel Dieu pathological laboratory we have had the opportunity on several occasions of applying this test. The following three cases serve to illustrate its application:

**Case 1 of Dr. Thiberge:** Mr. G. entered hospital October 5, 1922. Complaint, stomach trouble.
F. H. Negative.
P. H. Troubled with stomach for past year or so, some nausea and vomiting at times.
Examination. Well nourished male. All negative except some tenderness in epigastrium. All laboratory examinations negative except some increase in leucocyte count (13,000). The X-ray G. I. tract negative. Liver function test showed marked liver insufficiency.
Remarks: Patient much improved and was sent home with the possible diagnosis of hepatitis and some obstruction (biliary calculi).
October 18. Patient re-entered complaining of violent pain in stomach.
Examination. Showed marked enlargement of liver and tenderness on pressure. Operated upon by Dr. Danna October 23. Large, hard liver, distended gall bladder containing pus and many calculi. Many adhesions.

**Case 2 of Dr. Salatich.** S. D. entered hospital November 3, 1922, for liver function test. Complaint, indigestion, nausea and vomiting at times, prostration.
F. H. Negative.
P. H. Typhoid fever.
P. I. About three months ago indigestion constantly with feeling of soreness in region of stomach, nausea, vomiting, loss of weight, nervousness.
Examination. Fairly well nourished female, all negative except for some soreness on pressure over epigastrium. All laboratory findings negative except liver function test, which showed no rise or fall in the leucocyte count, remaining 5,000 throughout the two hours, showing some impairment. Operated upon by Dr. Salatich November 8. Liver somewhat swollen, gall bladder showed chronic exudative inflammation.

**Case 3 of Dr. Thiberge.** S. J. entered hospital August, 1922. Complaint, indigestion and high B. P.
F. H. Negative.
P. H. Negative.
P. I. Two years ago discovered had high B. P., constant attacks of indigestion, heavy lump in epigastrium, severe pains at times, vomiting, fever.
Examination. B. P. 160, liver and region of epigastrium tender. All laboratory findings negative. Liver function test showed no impairment of liver function.
Remarks. Patient sent home, much improved to this date, three months since, is doing very well.

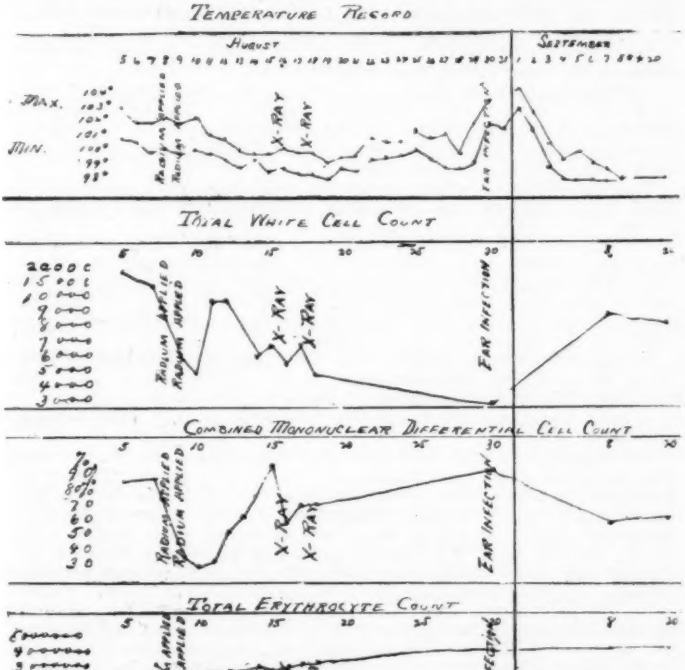
The foregoing cases serve well as examples of first, acute insufficiency of the liver; second, a low-grade chronic condition, and, third, normal function. The test is also extremely valuable

in determining the amount of liver damage done by the administration of arsphenanime, other arsenical compounds, chloroform, ether, etc., and in controlling the degree of which permanent injury may result therefrom.

## LYMPHATIC LEUKAEMIA.

Dr. F. M. Hoffman reported a case simulating acute lymphatic leukæmia with apparent recovery.

**Miss F. L.** Age 8, residing near Jackson, La. Taken sick July 27th with malaise, temperature ranging from 99 in the morning to 102 in the afternoon. Malaria examination negative. Widal negative. Appetite poor. On the night of August 2nd mother noticed that child's gums were bleeding and on the morning of August 3rd she noticed red spots all over the body. The doctor was summoned and pronounced it a case of purpura hemorrhagica, and advised immediate removal to the city. She arrived here on the evening of August 3rd. On examination the child's face and extremities were covered with



purpuric spots; there were none on the trunk. Slight cervical, axillary and inguinal glandular enlargement. Bowel movements as well as micturition contained bright red blood. She was seen in consultation on August 4th by Dr. Nix, who suggested the strong possibility of scorbutic etiology. Total and differential count showed 20,000 white cells, with 90% mononuclears.

She was seen in consultation late Saturday evening, August 5th, by Dr. Bel, who pronounced it a case of acute lymphatic leukemia, and suggested the use of transfusion if hemorrhages should continue. During Saturday and Sunday the child developed a few more purpuric spots. Hemorrhages continued as before. The usual hemostatics were given, such as calcium lactate, benzol, horse serum, etc., without result.

Monday, August 7th, blood picture was as follows: total reds, 3,400,000, hemoglobin, 50%, total whites, 17,000, mononuclears 90%, platelets diminished in number. Seventy-two and one-half mgs. of radium were applied over the splenic area for 24 hours. The following day one hundred and seventy-two and one-half mgs. of radium were applied over another splenic area for 24 hours. Count taken next morning, August 9th, showed the following: red cell count 1,830,000, hemoglobin 45%, total white cells 6,500, mononuclears 36%, no blood in stool. During entire time of application of radium the child appeared to be feeling badly and complained of several attacks of nausea.

On August 10th total red count was 2,190,000, hemoglobin 40%, total white count 5,000, mononuclears 32%.

On August 14th total red count was 2,700,000, hemogolbin 45%, total white count 7,500, mononuclears 67%. Purpuric spots had faded and hemorrhages ceased. Appetite improving.

On August 15th total red count was 2,790,000, hemoglobin 45%, total white 8,300, mononuclears 90%.

Fearing effects of radium on the red cells, it was decided to use the deep X-ray therapy. A half hour exposure over the femurs was given.

On August 16th, total red cells were 3,100,000, hemoglobin 50%, total white 5,800, mononuclears 61%. Platelets slightly below normal. Temperature at that time had dropped to a maximum of 100 and a minimum of 99.

On August 17th another X-ray exposure was administered on account of the rise in the mononuclears.

On August 18th total red count was 3,460,000, hemoglobin 50%, total white 5,000, mononuclears 71%. Temperature then was maximum 100 and a minimum of 98.6.

A rest was then given and she was sent to stay with relatives outside.

On August 24th the child developed "la grippe," the temperature gradually rising to a maximum of 102 2/5 on August 27th. The temperature again went down and the patient began having pain in the right ear, developed temperature of 103. The condition was diagnosed by Dr. Ryan as an acute catarrhal otitis media. This lasted for four days, the temperature going down to normal on September 7th. The count taken on September 8th showed total red cells, 4,210,000, hemoglobin 75%, total white count 10,400, lymphocytes 50%, platelets normal. The child's temperature remained normal. A count taken on the 20th of September showed a total red cell count of 4,790,000, hemoglobin 75%, mononuclears 52%, total white cells 8,400, platelets normal.

Dr. Couret stated that the malignant blood diseases have always been extremely interesting, principally because the blood

picture showed something a little different in each case, and because other conditions might sometimes be confused with them. He said "malignant" because he was not convinced from the data at hand that any true primary anemia or leukemia had ever been cured. Many conditions giving rise to grave secondary anemias and lymphocytosis might at times be mistaken for these primary blood diseases. He made the mistake, not infrequently, of diagnosing as primary anemias and lymphatic leukemias, cases that later proved to be tubercular or syphilitic or even colon infections.

Dr. Hoffman's case certainly suggested at its onset acute lymphatic leukemia and it was only on further blood examinations that he became doubtful, and later that he was convinced, that the case was not one of this kind. Pernicious blood diseases were fortunately rare. In his experience he seldom met with more than an average of one or two cases a year. Within the past four months he had seen four or five cases of the type of Dr. Hoffman's and had heard of as many more from the Touro Clinics and Charity Hospital. All of these cases were diagnosed lymphatic leukemias and, while most died, he knew that several recovered.

It is believed by some that leukemias are infections and sometimes transmitted to those coming in contact with the afflicted one. Dr. Couret wondered if it were possible that we were dealing with an epidemic of this disease. He was rather inclined to think that we were dealing with a malignant form of some acute infectious disease, perhaps Dengue.

Dr. W. A. Gillaspie recalled a case he had some fifteen years ago. He was called to see a child between the age of four and five years. This case started with bleeding of the gums and eyes. Afterward ecchymotic spots appeared all over the body.

In those days there were no laboratories and there were no tests made. The child was treated symptomatically by being put to bed with an ice cap to the head, and sponging was ordered to control the fever. Plenty of lemon juice, arsenic and iron were given. The child recovered and is living and healthy today.

Dr. Charles Bloom was very much interested in the case presented, but systomatology and laboratory findings were such that he could not differentiate this case from Purpura Hæmorr-

hagica. Purpura in infants and children was classified under three headings: 1. Purpura Simplex. 2. Purpura Rheumatica. 3. Purpura Hæmorrhagica (Morbus Maculoso Werlhoffi). He said the first two types could readily be eliminated, but the third corresponded in a great many ways with the case in question.

As regards Lymphocytosis, oftentimes one notes such findings with but slight pathological changes to warrant same, but on the other hand, we know that it is true that the number of lymphocytes are normally increased in children, particularly in infants. The fact that this child had purpuric spots on the extremities and surfaces exposed to pressure, makes this more interesting as far as differential diagnosis is concerned. Inasmuch as adenopathies are often noted in children with simple anemia and with mild infections, and sometimes in cases where no pathology can be demonstrated, the following questions were warranted: 1. What was the childs condition prior to this illness? 2. Was there any evidence of general adenopathy prior to this illness? 3. Was a blood count made at any time previous to the one mentioned?

As regards the pains mentioned, this symptom was sometimes explained in purpuric conditions by sub-periostial hemorrhages as noted at autopsy. Dr. Bloom found it difficult to make a final diagnosis of acute leukemia in the case.

Dr. Bowden did not expect to discuss Dr. Hoffman's report, but was greatly interested in the case presented because of one which had come to her attention through Dr. Loeber's service in the Touro clinics. The only aspects which this case presented in common with Dr. Hoffman's case were nose-bleed and a relatively high leucocyte count. As she recalled it, the count was 18,000 leucocytes with 70-80 lymphocytes. Otherwise, the case was clinically negative. No diagnosis was made and no improvement noted. She heard of another case presenting the same symptoms outlined. In this instance, a diagnosis of acute lymphatic leukemia was made and cacodylate of soda administered. The case recovered.

Dr. Hoffman said that no basal metabolic rate was taken and no blood cultures made, as he thought that the diagnosis was

certain at the beginning. He was concerned, then, more about the immediate treatment than an erroneous diagnosis.

He investigated the lymphatic leukemia cases that had been shown at Charity Hospital and found that there were many leukemia cases. Dr. Irwin stated that all of these cases were chronic and not acute during the time that he was there. In answer to Dr. Bloom, Dr. Hoffman stated that previous to the onset, the child was perfectly well, hence no count was taken.

When the child came in physical examination revealed posterior cervical gland enlargement, axillary and inguinal enlargement. X-ray of the chest was made and was negative.

As regards pains, they came on after she was back home, after radium and x-ray treatment and after the bleeding had ceased. Pains were relieved with aspirin. They were acute at the time but passed off within 24 hours.

Dr. Hoffman felt indebted to Dr. Danna for his suggestion as to the use of radium. He tried it and was successful. However, if it had not given results, he was determined to give Coleys toxins a trial.

## PROCEEDINGS OF THE TOURO INFIRMARY STAFF.

### Monthly Meeting for November, 1922.

### The President, Dr C. Jeff Miller, in the Chair.

### GASTRIC HEMORRHAGE.

Dr. Urban Maes reported a case of unaccountable gastric hemorrhage. This occurred in a young man 22 years of age—a fireman—who had never had any previous symptoms pointing to gastric pathology. When first seen a quart of blood had just been vomited for the third time. Hemorrhage from gastric ulcer was immediately suspected. Operation was refused till the next afternoon—an interval of about sixteen hours. In the meantime, he had still been having vomiting spells of bright red blood at regular intervals—just long enough for the stomach to fill. He would settle down after a vomiting spell in a state of exhaustion and wait for the next hemorrhage to occur. Operation failed to reveal anything in the stomach suggestive of ulcer. In the duodem a small indurated spot suggestive of duodenal ulcer was found. The anterior stomach wall was then incised and the entire mucous membrane from the cardia well into the pylorus failed to reveal any bleeding point. Thinking that the induration in the duodenum might be an ulcer, posterior gastro-enterostomy was performed. Following Neuhof's suggestion, two doses of sodium citrate were given to increase the rapidity of coagulation. Nothing done, including gastric lavage, had any effect on the bleeding. Vomiting always profuse and copious and hemorrhages continued, and finally, death occurred on the morning after the operation. Dr. Maes' attention was attracted to an article in the April number of S. G. O., by Dr. Armstrong, who reported in detail a similar case and called attention to the fact that ten or twelve similar occurrences had been noted in Montreal. No etiology except the possibility of infection was suggested. All operative cases died. He reported two recoveries where the condition was recognized or suspected. Both were transfused and recovered. Armstrong suggested that transfusion acted by minimizing the infection and increasing the blood coagulability. All of the patients operated on died and all not operated on but transfused got well.

## CRANIAL INJURIES.

Two cases were reported by Dr. Maes. Both patients were victims of severe head injuries. In one, some of the signs of a fractured base were recognized, but not in the other. Under observation for two hours, there was no surgical shock. The advisability of decompression was determined by using the mercury manometer instead of depending solely on spinal puncture. The pressure on both of these patients instead of being a normal plus 7 to 10 was plus 21 in one, and plus 22 in the other. Double decompression was done in both cases. Bloody cerebrospinal fluid was found. Both have made uneventful recoveries. Both have cleared up entirely and remained well. The important point was the rather accurate method of determining the intracranial pressure.

Dr. Hilliard Miller reported a case of gastric hemorrhage without reference to a stomach lesion. Twelve years ago her breast had been removed for adenocarcinoma. Two years following the operation a gastro-enterostomy had been performed for duodenal ulcer.

Cancer of the stomach was suspected or recurrent ulcer of the duodem or jejunum. Operation was refused until numerous hemorrhages recurred.

Laparotomy was done and thorough search of the duodenum, stomach and upper jejunum failed to reveal any ulcer or condition to account for hemorrhage. The anterior wall of the stomach was opened and the entire mucosa everted in a search for the cause of the bleeding. The mucous membrane failed to show anything other than a mild degree of oedema with a general oozing of blood. There were no varicosities nor was there any noticeable evidence of cirrhosis of the liver. The gastric mucosa was seared with a dull red cautery and the stomach and abdomen closed. The patient made an uneventful recovery and has had no further attack over a period of twenty months. Dr. Miller was inclined to feel from Dr. Maes' report that the patient recovered in spite of the operation, rather than as a result of it.

Dr. De Buys asked if any blood coagulations were determined in these cases.

Dr. Landry stated, in regard to undetermined gastric hemorrhage, that he had an experience some years ago where a gas-

trotomy and thorough search failed to reveal the source of hemorrhage. At autopsy a marked varicosity with erosion in the lower esophagus was found. He thought this incident might suggest a possible etiological factor. There was no hepatic cirrhosis.

Dr. A. I. Weil said that transfusions and infusisons helped these cases of oozing from the stomach; it was possible that the procedure which had been adopted by the Ear, Nose and Throat men might be of equal importance. That is to say, if the purpose of the transfusion was simply to increase the coagulability of the blood, it was found that the injection of certain hemostatic serums reduce coagulability very markedly and so terminate the bleeding. Sometimes coagulation time was reduced from seven or eight minutes to three or four, and it seemed in these cases that if these hemorrhages were due to lack of coagulability of the blood, the patient might be benefited by the injection of serum without using actual blood transfusions.

Dr. Maes called attention to the careful inspection in his case and stated that there was no cirrhosis of the liver. The coagulation time was not tried.

## RUPTURED SPLEEN.

Dr. Urban Maes reported a rupture of the spleen following a motor cycle accident.

The patient, 25 years of age, was thrown from a motor cycle in a collision. He presented the picture of extreme shock and complained of some pain in his left hypochondriac region. From the rapidity and volume of his pulse, also his blood pressure, nothing could be found other than extreme shock. Hourly blood pressure readings failed to reveal any change and the volume and rapidity of pulse improved for several hours. After nine hours he began to lose ground, so determination of his hemoglobin was made with a Dare instrument. The reading was 65. The possibility of internal hemorrhage was suspected and exploratory laparotomy was done twelve hours from the time of injury.

A median incision revealed a distended peritoneum of the characteristic bluish color seen in intra-peritoneal bleeding. Passing the hand to the left hypochondriac region, a rent was felt in the convex surface of the spleen. This organ was brought into the wound with difficulty on account of a short pedicle.

There was a rent in the capsule extending a short distance into the pulp. Despite infusion and a subsequent transfusion the patient died the following afternoon.

## FOREIGN BODIES IN THE OESOPHAGUS.

Dr. Kearney reported three cases of foreign body in the oesophagus. The first case, a chicken bone; second case, a five-cent piece, and the third case, a fish bone. A young lady about 18 years of age, after eating chicken hash, suddenly felt something lodge in her throat. She came to the hospital a few hours later complaining of pain under the sternum on swallowing. Routine examination of the throat was negative. Fluoroscopic examination was negative. Barium capsule did not lodge at the foreign body where swallowed. Esophagoscopic examination showed the foreign body lodged in the oesophagus in the neighborhood of the arch of the aorta. It was extracted with the forward grasping forceps and proved to be a part of the sternum, the usual fragment found in cases where the foreign body is a chicken bone. The young lady was toothless, wearing false plates. This is a common cause of foreign body in the oesophagus; the patients are unable to chew well and swallow large fragments.

The second case was a baby two years old who had been unable to swallow anything but liquids for five days. X-ray showed the coin in the oesophagus behind the cricoid cartilage, the point where most foreign bodies lodge in the oesophagus. The coin was extracted with the oesophageal speculum and alligator forceps.

The third case was a fish bone in a three-year-old child. The child was sitting at the supper table and was given a mouthful of fish by another child. The patient choked and was unable to swallow after that without a pricking sensation in the throat. X-ray examination was negative. On oesophagoscopy with the oesophageal speculum, the foreign body was found in the oesophagus, behind the cricoid cartilage and was removed with the alligator forceps.

The first of these cases was done under general anesthesia, the last two cases were done without any anesthetic whatever. It might be better to use general anesthesia for the extraction of those foreign bodies in the oesophagus which present mechanical difficulties, such as open safety pins. One of the difficulties

in looking through the oesophagoscope at foreign bodies is that the foreign body does not look anything like the thing that is extracted. The reason for this is that they are seen edgewise in the oesophagus. Before a foreign body is taken out of the oesophagus its position ought to be carefully studied. It is necessary sometimes to rotate foreign bodies so that any sharp points will either be brought out trailing or be brought into the tube mouth and prevented from ripping into the tissues.

Dr. Weil was struck by the frequency with which the X-ray failed in the case of foreign bodies. One would naturally expect some to give shadows with the X-ray. For instance, chicken bone —a large part of the breast bone would be expected to cast some shadow. One is inclined to believe that something has been there and passed on simply leaving the scratch. He remembered the case of a chicken bone and felt it in the region of the sternum. He was inclined to believe that this chicken bone had passed on—the X-ray was negative. Under local he passed the oesophagoscope, and as soon as it passed into the beginning of the oesophagus, there was the chicken bone. It is rather fortunate that the point of the foreign body is usually just at the opening of the oesophagus back of the cricoid cartilage. That is where they stick unless we push them down. That is why the use of the oesophageal speculum is advantageous in children especially. Occasionally unsuccessful cases are seen. A few weeks ago a boy of twenty swallowed a tooth plate of one tooth. He felt it and the X-ray showed the foreign body at the opening of the oesophagus. With forceps this was grasped, and on two occasions he failed to extract it. On the third, fourth and fifth occasions, he came to the conclusion that the introduction of the esophagoscope had pushed it down. The next day the X-ray showed the object still in the original place. Very likely the esophagoscope passed under the site of the body. The patient failed to return. Dr. Weil found coins easy to remove, safety pins difficult. When they got into the trachea and bronchi they were very difficult.

Dr. Samuels said, in defense of the X-ray, that these foreign bodies were usually very small and in contrast to the bony structure of the chest, especially the ribs, it was practically impossible to see them. Another thing that entered into the difficulty was the cooking that bones have undergone, resulting in changes in their chemical constituents.

## NEWS AND COMMENT.

THE COLLEGE OF PHARMACY OF PHILADELPHIA announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about three hundred dollars, will be made on July 14, 1923, provided that an essay deemed by the committee of award to be worthy of the prize shall have been offered.

Essays intended for competition may be upon any subject in Medicine, but cannot have been published. They must be typewritten, and if written in a language other than English, should be accompanied by an English translation, and must be received by the secretary of the college on or before May 1, 1923.

Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author.

It is a condition of competition that the successful essay or a copy of it shall remain in possession of the college; other essays will be returned upon application within three months after the award.

THE SIXTEENTH ANNUAL MEETING OF THE SOUTHERN MEDICAL ASSOCIATION was held in Chattanooga, Tenn., Nov. 13-16, with an approximate registration of two thousand. Those attending the meeting from New Orleans were: Drs. C. C. Bass, A. L. Levin, Allan Eustis, J. H. Smith, J. A. Lanford, E. C. Samuel, I. I. Lemann, Randolph Lyons, H. W. E. Walther, J. B. Guthrie, L. R. De Buys, L. L. Cazenavette, G. F. Roeling, Paul J. Gelpi, Homer Dupuy, J. W. Durel, D. N. Silverman, S. K. Simon, C. W. Allen, Urban Maes, C. J. Miller, F. W. Parham, E. D. Martin, A. Nelken, J. T. O'Ferrall, T. B. Sellers, W. Levy, W. T. Patton, Oscar Dowling, J. G. Dempsey and Dr. J. P. Leake, P. G. Lacroix, I Cohn, A. M. Caine, A. Weil.

Dr. Allen Eustis was made Chairman of the Medical Section and Dr. C. C. Bass Chairman on Medical Education.

As the complete list of officers was unavailable at the time of going to press, this list will be published in the next issue.

IN THE FIFTH CONGRESSIONAL DISTRICT. Drs. Dollerhide, Kelly and Pully, of Oak Grove, J. A. Gaharon, of Forest; W. E. Little, of Pioneer, and B. T. Bailey, of Epps, met and organized the

West Carroll Parish Medical Society on November 15th 1922. The society is to meet on the second Wednesday of each month. Dr. Gaharon was elected president and Dr. B. L. Bailey secretary-treasurer. On Dec. 13, 1922, will take place the election of officers for 1923.

THERE WAS A WELL ATTENDED MEETING of the Orleans Parish Medical Society on Friday, November 10, at 8 p. m. The meeting was called for the purpose of hearing a lecture on the subject of "Twilight Sleep" by Dr. Bertha Van Hoosen, of Chicago, Ill.

THE STAFF OF THE EYE, EAR, NOSE AND THROAT HOSPITAL held a meeting for the purpose of organization on November 6, 1922, at 8 p. m. This was held in the library of the new building, and was well attended. Dr. H. D. Bruns was elected chairman; Dr. R. C. Lynch vice-chairman; Dr. C. A. Bahn secretary. Rules and regulations in conformity with the requirements of the American College of Surgeons were adopted, and it was decided to meet hereafter on the first Monday of each month, the chairman being empowered to name a program committee.

IN THE SIXTH CONGRESSIONAL DISTRICT: The Feliciana's Medical Society held their bi-monthly meeting in the East Louisiana Hospital as guests of Dr. E. E. Evans and staff.

Dr. M. F. Wilson, of New Orleans, read an interesting and instructive paper on Vaccines. A vote of thanks was extended Dr. Wilson for his paper.

Election of officers for 1923 resulted as follows: Dr. E. E. Evans, President; Dr. Jas. Kilborne, vice-president; Dr. E. M. Toler secretary and treasurer, Dr. J. W Lea delegate to State Medical Meeting, and Dr. C. E. Latham, alternate.

THE ORATION IN MEDICINE before the S. M. A. was delivered by Dr. C. C. Bass, dean of Tulane College of Medicine, his subject being "Transformation of the Intestinal Flora."

DR. H. W. E. WALTHER, NEW ORLEANS, was elected chairman of the section on urology of the S. M. A., at Chattanooga, recently.

DR. CHAS. H. MAYO delivered an address before the medical student body of Tulane at Charity Hospital on Nov. 18th.

DR. W. H. KNOLLE, ex-president of the Orleans Parish Medical Society, and of the Louisiana State Society, was a recent visitor

in New Orleans. Dr. Knolle has been spending some time in Texas on account of his health. From all accounts the prospects for his early permanent return are exceedingly favorable.

In the Eighth Congressional District: Dr. J. C. Gremillion, who has been connected with the Marine Hospital at Algiers, has returned to Alexandria and resumed his private practice. His new address will be Albert Building, in Second Street.

Dr. Samuel Calhoun moved from Woodworth to Alexandria November 1st. Dr. Calhoun graduated from Tulane with the class of 1921 and has come to Alexandria to be connected with the Public Health Administration. Office and address in the City Hall.

The Rapides Parish Medical Society held a called meeting at the Baptist Hospital Monday, November 20, for the special purpose of reorganizing the hospital staff.

Born—To Dr. and Mrs. M. H. Foster, on Sunday, October 29, a nine-pound boy—their third son.

The United States Veteran's Bureau offers a special course in Neuro-Psychiatry to a certain number of qualified physicians on condition that upon completion of such course they will continue in the service of the bureau for a period of at least two years thereafter.

The policy of this bureau is to provide expert medical attention for the disabled veterans so that every thing possible may be done to restore them to health and proper status in civilian life.

The main part of this course will be given at St. Elizabeth's Hospital, a government institution for the insane at Washington, D. C., which offers unusual and unexcelled facilities for such work. There are nearly 4,000 patients and case histories of more than 20,000 discharged patients immediately available for study. Here are all classes of nervous and psychotic diseases, while other public hospitals in Washington will provide abundant clinics in so-called functional diseases, borderline cases, and the milder types.

As the number of students that can be accommodated is limited, early application for each course is desirable.

At the Charity Hospital, New Orleans—The Accident Service at Charity Hospital is divided into two branches, the Ambu-

lance Service and the Accident Room Service. These two branches are cared for by five surgeons, four of whom are constantly subject to call.

A call for an ambulance is given to the switchboard operator, and there are three lines on which only incoming calls can come. A card is made out by the operator, showing the address of the place from which the call came. The ambulance signal is then sent out over the telegraph ticker system, which is installed throughout the hospital. The card bearing the address of the call is given to one of the ambulance surgeons and he takes the ambulance to the scene of the accident. On arriving there the injured person is given first aid treatment and is taken to any address desired. If the patient is brought to the hospital he is turned over to the surgeons in the Accident Room, where further treatment is given before the patient is sent to a ward.

The Accident Room, which is located in the Main Building, serves patients who come in not only on the ambulance, but on other conveyances as well. A great number of the patients walk in. Cases ranging in seriousness from a broken neck to a splinter in the finger are treated here. The greatest number of patients ever treated in one month in the Accident Room was in July of this year, at which time 2025 persons received attention here.

An improvement is being made in the hot water system of the hospital. At the present time there are five heaters throughout the buildings, and it is necessary to send live steam to these heaters to heat the water. Two heaters are being installed in the power house, which can be heated with the exhaust steam. This will mean a big saving to the hospital, especially in the summer time, when it will be necessary to send steam only to those buildings where sterilizers are located.

THE DAVID TRAUTMAN SCHWARTZ RESEARCH FUND—Tulane University announces a donation of $20,000 by Mr. and Mrs. Leon E. Schwartz for the purpose of establishing a memorial to their son, David Trautman Schwartz. A permanent trust fund has been established through this donation, known as "The David Trautman Schwartz Research Fund," of which the interest is to be devoted entirely to research work and fellowship purposes in the School of Medicine of Tulane University.

AT LOYOLA POST-GRADUATE SCHOOL OF MEDICINE—In addition to the usual courses, three intensive six weeks' courses in Medicine, in Surgery, and in the Eye, Ear, Nose and Throat, have been running since October 15th, for which only a nominal registration fee was paid.

The courses have been so popular and so generally satisfactory, that at the November meeting of the Board of Directors it was decided to repeat the series for a period of six weeks, beginning February 1st, 1923.

POST-GRADUATE SCHOOLS FOR VETERANS' BUREAU PHYSICIANS—Colonel C. R. Forbes, Director of the Veterans' Bureau, announces that he is about to establish Post-Graduate Schools for physicians now connected with the bureau and those who wish to join the service.

There will be two schools for the teaching of diagnosis, care and treatment of pulmonary tuberculosis, one at Fitzsimmons General Hospital, Denver, Colorado, and the other at U. S. Veterans' Hospital No. 41, New Haven, Conn. The course at these hospitals will be uniform and will run simultaneously. Each course will last two months, and will include collateral branches of medicine, such as pathology, X-ray plate interpretation, physiotherapy, etc.

TURNING BAYOUS INTO LAKES CONTROLS MALARIA MOSQUITO—The U. S. Department of Agriculture states that control of *anopheles* mosquitos, which convey malaria, in the bayou or streams of the Delta region of the lower Mississippi, can be largely accomplished by impounding the water in these bayous to provide a permanent lake-like level of water sufficiently high to suppress the growth of the rank aquatic vegetation which furnishes conditions favorable for mosquito breeding.

REMOVALS—Dr. P. G. Lacroix from 1211 Maison Blanche Bldg. to 1522 Aline St.

Dr. I. Tedesco from 212 Medical Bldg. to 3207 De Soto St.

Dr. Chas. Chassaignac from 211 Tulane-Newcomb Bldg. to Eye, Ear, Nose and Throat Hospital.

DIED—Dr. L. J. Vialet, on Sept. 22, 1922, at Baton Rouge, La.
Dr. Andrew J. Friedrichs, on Oct. 14, 1922.

## BOOK REVIEWS AND NOTICES.

All new publications sent to the JOURNAL will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the JOURNAL to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. Th acceptance of a book implies no obligation to review.

**X-Ray Dosage in Treatment and Radiography,** by W. B. Witherbee, M.D., and John Remer, M.D. The MacMillan Co., New York, 1922.

This little booklet will be found useful to all roentgenologists using the X-ray for superficial treatment. The dosages are clearly presented with many different formulas, easy to understand even by the beginner.

Dr. Witherbee is well known to all X-ray workers, especially as regards the work that he has done in the treatment of diseased tonsils, and to those interested in this treatment attention is called to chapter VI, dealing with the treatment of throat infections with the X-ray. The technic used is made clear with illustrations, and can be duplicated by any roentgenologist.

The authors are to be congratulated upon the clearness of description and excellent illustrations. L. J. M.

**Principles and Practice of X-Ray Technic for Diagnosis,** by John A. Metzger, M.D., C. V. Mosby Co., St. Louis, 1922.

Roentgenologists are familiar with most of the technic presented in this book. There are, however, many new and excellent ideas and suggestions offered by the author that will be found interesting and useful to both roentgenologists and students.

Attention is called to the danger of permitting an assistant to hold in place a plate or film for radiographic purposes as is seen in Fig. 17, page 52 (lateral position for cervical spine). The use of lead rubber gloves does not offer sufficient protection to be free of danger. The practice is dangerous and should be condemned.

The book is well written and profusely illustrated, and should appeal to students and operators. L. J. M.

**Text Book of Physiology for Medical Students and Physicians,** by William H. Howell, Ph.D., M.D., 8th Ed. W. B. Saunders Co., Philadelphia and London, 1922.

The text of the eighth edition has lost none of the clarity of style or precision that has been notable in previous editions. In the new matter presented there will be found no fundamental change or any epoch-making discovery, but, with the possible exception of the nervous system, the book has been kept in touch with current progress.

A due emphasis and allotment of space is given each subject treated in proportion to its importance to student and physician, and it may be said that for the average graduate or under-graduate in search of physiological facts, the book is not surpassed by any as text or reference. R. H.

### PUBLICATIONS RECEIVED.

**P. Blakiston's Son & Co., Philadelphia:** Lateral Curvature of the Spine, and Round Shoulders, by Robert W. Lovett, M.D., Sc.D. Text-Book of Physiology, by Albert P. Brubaker, A.M., M.D., LL.D., seventh edition.

**C. V. Mosby, St. Louis:** Diseases of Women, by Harry Sturgeon Crossen, M.D., F.A.C.S., fifth edition.

**John Wiley & Sons, New York:** Animal Parasites and Human Disease, by Asa G. Chandler, M.S., Ph.D.

**Harvard University Press, Cambridge:** The Causes of Heart Failure, by William Henry Robey.

**Solar Press, Chicago:** Gonorrhea and Impotency, by Edwin W. Hirsch, S.B., M.D.

**Macmillan Company, New York:** Polaris, The Story of an Eskimo Dog, by Ernest Harold Baynes.
Brain Abscess, by Wells P. Eagleton, M.D.
Acute Cases in Moral Medicine, by Rev. Edward F. Burke, M.A., Ph.D.

**Washington Government Printing Office, Washington, D. C.:** Public Health Reports, Vol. 37, Nos. 40, 41, 42, 43.

**Miscellaneous:** Transactions of the American Otological Society, Vols. No. 8, part 1 and 2; No. 10, part 3; No. 11, parts 1 and 2; No. 12, part 1; No. 13, part 2; No. 15, part 3; Mercury Publishing Co. Bibliography of Hookworm Disease; The Rockefeller Foundation Report for 1921, The Rockefeller Foundation. Testicular Grafts, by Dr. Serge Voronoff.

## REPRINTS.

Case of Primary Nocardiasis of the Lachrymal Gland caused by a Species of Nocardia hitherto undescribed, by J. B. Christopherson, M.D., and R. G. Archibald, D.S.O., Major R.A..MC. Revised Method of Twilight Sleep; The Use of Scopolamin in Criminology, by E. House, M.D. Encefalitis Letárgica; La Immunidad en las Enfermedades espiroqueticas, by Dr. W. H. Hoffman. Rêsumé of Preservation of Anatomic Dissections with Permanent Color of Muscles, Vessels and Organs, by Edmond Souchon, M.D. Public Health Nos. 736, 747, 752.

## MORTUARY REPORT OF NEW ORLEANS.

**Computed from the Monthly Report of the Board of Health of the City of New Orleans, for October, 1922.**

| CAUSE | White | Colored | Total |
|---|---|---|---|
| Typhoid Fever | 1 | 1 | 2 |
| Intermittent Fever (Malarial Cachexia) | 1 | | 1 |
| Smallpox | | | |
| Measles | | | |
| Scarlet Fever | | | |
| Whooping Cough | | | |
| Diphtheria and Croup | 3 | 1 | 4 |
| Influenza | 7 | 3 | 10 |
| Cholera Nostras | 1 | | 1 |
| Pyemia and Septicemia | 1 | 1 | 2 |
| Tuberculosis | 19 | 22 | 51 |
| Cancer | 27 | 9 | 36 |
| Rheumatism and Gout | 1 | 3 | 4 |
| Diabetes | 5 | 3 | 8 |
| Alcoholism | 2 | | 2 |
| Encephalitis and Meningitis | 1 | | 1 |
| Locomotor Ataxia | | | |
| Congestion, Hemorrhage and Softening of Brain | 24 | 11 | 35 |
| Paralysis | 1 | | 1 |
| Convulsions of Infancy | | | |
| Other Diseases of Infancy | 15 | 8 | 23 |
| Tetanus | 2 | 3 | 5 |
| Other Nervous Diseases | 1 | | 1 |
| Heart Diseases | 72 | 38 | 110 |
| Bronchitis | 1 | 1 | 2 |
| Pneumonia and Broncho-Pneumonia | 21 | 18 | 39 |
| Other Respiratory Diseases | 2 | 1 | 3 |
| Ulcer of Stomach | 3 | 1 | 4 |
| Other Diseases of the Stomach | | 3 | 3 |
| Diarrhea, Dysentery and Enteritis | 13 | 9 | 22 |
| Hernia, Intestinal Obstruction | 2 | 1 | 3 |
| Cirrhosis of Liver | 5 | | 5 |
| Other Diseases of the Liver | 2 | 2 | 4 |
| Simple Peritonitis | | | |
| Appendicitis | 7 | 3 | 10 |
| Bright's Disease | 24 | 16 | 40 |
| Other Genito-Urinary Diseases | 1 | 4 | 5 |
| Puerperal Diseases | 5 | 5 | 10 |
| Senile Debility | 4 | 1 | 5 |
| Suicide | 2 | | 2 |
| Injuries | 12 | 6 | 18 |
| All Other Causes | 26 | 25 | 51 |
| Total | 324 | 199 | 523 |

Still-born children—White, 27; colored, 27; total, 54.

Population of City (estimated)—White, 295,000; colored, 110,000; total, 378,000.

Death rate per 1000 per annum for month—White, 13.18; colored, 21.71; total, 15.51. Non-residents excluded, 13.35.

### METEOROLOGIC SUMMARY (U. S. Weather Bureau).

Mean atmospheric pressure ..... 29.94

Mean temperature ..... 72

Total precipitation ..... 3.25 inches

Prevailing direction of wind—northeast.